

LEARNING FROM EXPERIENCE:
THE PRACTICE OF TEACHERS WITH DYSLEXIA
WORKING WITH SPECIAL EDUCATION STUDENTS IN MASSACHUSETTS

by

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ABSTRACT

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This qualitative study sought to expand what is known about best practice for students with dyslexia in public schools. Despite its prevalence, there is confusion in the education field about what dyslexia actually is, how to identify it, and how to best remediate the difficulties associated with it. An untapped source of educational insight is teachers who have dyslexia and what they have gleaned from their experiences. The purpose of this study was to examine the perceptions of 20 Massachusetts teachers with dyslexia as they reflected on their own experiences in special education. Utilizing semi-structured interviews that included critical incident questions, answers to the following research questions were sought: (a) What did teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher? (b) In what ways have teachers' own experiences as learners and teachers with dyslexia influenced the ways that they currently practice? (c) In what ways did teachers with dyslexia perceive their learning disability affected their ability and capacity to teach students with dyslexia?

Participants described traumatic experiences that resulted from teacher misinformation or late diagnoses. Results included strong support for increased teacher knowledge and understanding about dyslexia, including the variability and complexity of the profile, training in scientifically-based reading interventions and carefully chosen classroom placement, and recognition that dyslexia continues across the lifespan. Results were analyzed with feedback from four member check participants and input from three higher education dyslexia experts.

The researcher made four conclusions: (1) Teacher training about the dyslexic profile is vital for all teachers; (2) All reading teachers must learn scientifically-based systematic phonetic reading approaches and access to such training must be improved; (3) Candidates and teachers with dyslexia have particular skill and empathy for working with students with dyslexia and should be supported; and (4) Teachers with dyslexia should have opportunities to share their voices in educational decision making.

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DEDICATION

This dissertation is dedicated to all the aspiring readers—

young and old—

who inspire my work.

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Chapter I

INTRODUCTION

The first chapter of this qualitative study introduces the context for exploring the journeys of special education teachers with dyslexia and how their own learning and experiences have shaped their current teaching practices. This section serves to define dyslexia and introduce the background of the study, the problem statement, purpose, research approach, assumptions, and rationale and significance of the inquiry.

Context and Background

Chances are everyone knows someone with dyslexia. According to the International Dyslexia Association (IDA, 2017), dyslexia is a specific learning disability that affects approximately 15% of the U.S. population. Dyslexia is an often-misunderstood term. The word *dyslexia* comes from *dys* meaning not or difficult, and *lexia* meaning words, reading, or language, so quite literally, dyslexia means difficulty with words (Catts, Kamhi, & Adlof, 2005). While characterized primarily as this challenge with reading and spelling words, dyslexia can be described as a collection of reading, writing, spelling, spoken language, and memory and processing difficulties (Brunswick, 2012). Combined, these difficulties render learners with dyslexia as relatively less able than learners without dyslexia to do some or all of the following:

manipulate speech sounds within words; read and spell accurately and quickly; hold verbal information, such as telephone numbers, in short-term memory; pronounce multisyllabic words accurately; process verbal information accurately; or display a similar level of ability in their spoken versus their written work. These difficulties can persist across the lifespan and can affect academic, social, and emotional domains. The International Dyslexia Association (IDA, 2002) offers the following definition of dyslexia in collaboration with the National Institutes for Child Health and Development:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge. (Lyon, Shaywitz, & Shaywitz, 2003, p. 2)

According to Lyon, Shaywitz, and Shaywitz (2003), dyslexia is not caused by a lack of motivation or environmental opportunities or by sensory impairment, inadequate instruction, or low intelligence. It is a brain-based learning difference that is often hereditary. Despite the widely accepted definition of dyslexia, there remains confusion in many educational settings about what dyslexia actually is, how to identify it, and how to best remediate the difficulties associated with it. As poor reading can stem from various causes, the presence of dyslexia is often masked. Poor reading is frequently dismissed as something a child will outgrow, and as such, dyslexia may not be identified until later years. Further, dyslexia occurs on a continuum from mild to severe. Those with mild symptoms may never end up identified, and thus may struggle unnecessarily to keep up with academic demands or refine their literacy skills. Added to these challenges is the fact that different terms are used to refer to dyslexia, including reading disability,

developmental dyslexia, specific learning disability in reading, reading impairment, and language-based learning disability (Catts et al., 2012). This variability in educational jargon leads to even more confusion for those with dyslexia and their families as they search for help with the effects of dyslexia. A quick search of “cure for dyslexia” on google.com in 2017 yielded 19,500 results. Many of these results consisted of empty promises and quick fixes that prey on vulnerable families and students. Non-evidence-based products such as special glasses, gym exercises, diets, and video games are frequently hawked. Louisa Moats (2016), dyslexia specialist and Vice President of the IDA, cautioned:

We should abandon the expectation that serious reading disabilities can be fixed or remediated in a few short lessons. If evidence is going to drive our thinking, then all indicators point to this: screen students early; teach all students who are at risk, skillfully and intensively; and maintain the effort for as long as it takes. Meanwhile, nurture students’ interests, aptitudes, and coping strategies and trust that most are going to make it in real life. (p. 1)

With appropriate intervention and support, students with dyslexia can go on to achieve the same levels as non-disabled peers. While there is a significant amount of literature about best practices for teaching reading to struggling learners, the brain research has not trickled down yet to the classroom level. For example, the Dyslexia Training Institute (2015) argued that common teaching strategies such as instructing students to look at pictures in books for clues, to use context to figure out unfamiliar words, or to search for smaller words within larger words are ineffective techniques for the student with this learning profile. The IDA supports the use of Structured Literacy™ for all struggling readers, and The Knowledge and Practice Standards set forth by the International Dyslexia Association (2018) proposed that the nature of this effective instruction for students who are struggling to learn to read is supported by sound

research. Suggested methods and strategies include explicit, systematic, cumulative, and multisensory instruction that integrates listening, speaking, reading, and writing and directly teaches the structure of the language at all levels, including phonology, orthography, syntax, morphology, and semantics (pp. 3-4).

Research on the nature of reading and spelling disability indicates that most people with dyslexia do not process language accurately or fluently at the level of phonology and they may experience disorders in syntax and semantics as well. Simultaneously, intervention research clearly demonstrates that individuals who are taught language structure explicitly progress more readily than those who are not. However, surveys of teacher knowledge, reviews of the literature on teacher education, and policy statements have revealed that many teachers are underprepared to teach language content and processes to children whose learning challenges are language-based (Moats, 2009). Even motivated and experienced teachers typically understand too little about spoken and written language structure to be able to provide sufficient instruction in these areas. Further, numerous research studies have also revealed confusion around identifying dyslexia and its treatment, even in the education arena. For example, a 2014 study purported that most teacher preparation programs fail to teach appropriate reading disability interventions to a level that supports teachers' implementation of effective instruction; it additionally contended that teachers may cling to unproductive philosophies of teaching not only because science-based instruction is neglected in many teacher training programs, but also because the content may be difficult for many to grasp (Moats, 2009).

Further, a 2011 quantitative study by Washburn, Joshi, and Binks-Cantrell revealed misinformation regarding the phenomenon of dyslexia and appropriate interventions. The inquiry found that only 29% of 99 surveyed U.S. teachers could provide a definition of phonemic awareness, or the ability to manipulate speech sounds in words. Weakness in phonemic awareness is a key indicator of reading disability. The same study revealed that 91% of surveyed teachers indicated either “probably or definitely true” to the indicator “seeing letters and words backward is a characteristic of dyslexia” (p. 174). This finding is somewhat indicative of the popular misconception that dyslexia is the result of a visual deficit.

Adding to the confusion around dyslexia identification and treatment is the clinical diagnosis needed to identify dyslexia, which conflicts with the educational diagnoses determined in public schools. Currently, there is no educational category for “dyslexia” in public school special education. In Massachusetts, where this research study took place, students with reading and spelling challenges who meet federal definitions are categorized under a catch-all label called “Specific Learning Disability” or SLD (Massachusetts Department of Elementary and Secondary Education, 2001). Dickman (2008) argued that a more precise label is necessary; “SLD is the zip code, dyslexia is the street; [and] research is just beginning to distinguish one house from the next” (p. 5).

According to Shaywitz (2005) at the Yale Center for Dyslexia and Creativity, students without a clear diagnosis of dyslexia may be deemed lazy or unmotivated, or they may be diagnosed as having an emotional disability due to behaviors associated with frustration tolerance around academic tasks. The majority of students with dyslexia is

mainstreamed and included in general education settings in accordance with the Individuals with Disabilities Act of 2004. This act requires that students with disabilities be placed in the Least Restrictive Environment (LRE), details of which follow:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Retrieved December 1, 2017 from <http://idea.ed.gov/explore/view/p/,root,statute,I,B,612,a,5,.html>)

Mainstreamed general education settings may not always be the most appropriate placement for students with dyslexia, unless the teacher is highly skilled. General education teachers often have little knowledge of the subject of dyslexia (Washburn et al., 2011). In contrast, many adults with dyslexia have revealed that they preferred to remain in the regular classroom when they were in school because they did not wish to appear different or be thought of as not as capable (McGrady, Lerner, & Boscardin, 2001).

The understanding of the phenomenon of dyslexia and the methodological dilemmas involved are particularly relevant as it is expected that in the coming years there will be increased awareness of dyslexia and reading challenges (Youman & Mather, 2018), including passage of new federal and state laws to protect individuals with dyslexia. The recent increased awareness includes 2016 federal legislation for dyslexia screening and dyslexia research (2016 H.R. 3033: READ Act). Additionally, U.S. states are rapidly introducing dyslexia laws that will provide more students access to support and ensure that the appropriate interventions are in place in public schools. According to the IDA, 37 states had passed laws regarding dyslexia in public schools as of spring

2017. These laws address one or more of the following areas: defining dyslexia and other conditions that affect language learning; early universal screening and identification of students with dyslexia in Kindergarten to Grade 3; procedures for states/schools for screening and intervention; training and professional development for current teachers so they will understand how to teach students with dyslexia; education about dyslexia in teacher preparation programs; accommodations, support, and early intervention for students identified as having dyslexia or being at risk; and funding for dyslexia programs (Decoding Dyslexia Massachusetts, 2017).

As public school districts move to implement these mandated changes, they reach for standardized assessment instruments, curriculum materials, and professional development offerings to help train their staff to meet students' needs. Once identified, struggling students may be placed in a substantially separate specialized class, in a pull-out tutorial setting, or in an inclusion classroom with accommodations, depending on the severity of their needs and the availability of resources in the public school district. Within each setting, instructional practices vary, depending on the training of the staff or the philosophy of the school. According to Decoding Dyslexia Massachusetts (2017), this variability in placement and teaching methodology is one reason that parent groups have labored to standardize definitions, interventions, and teacher training in public schools.

Dyslexia is the most common of the types of specific learning disability (IDA, 2017). Since dyslexia is so prevalent, it is not surprising that a significant number of teachers and teacher trainees have their own dyslexia (Burns & Bell, 2011). Educators with dyslexia will be a valuable source of experience and insight. Their own successes and struggles in learning to read will be helpful in adding to the research and in

understanding best practices for K-12 students with dyslexia. Research with or on these teachers can provide important information that would be beneficial in informing teacher training programs for students with reading disabilities. At present, we do not know enough about the social, emotional, and learning experiences of those with dyslexia who have journeyed to become teachers of students with dyslexia.

Problem Statement

We are learning that dyslexia is a larger problem for the population than previously thought. Fortunately, some individuals with dyslexia grow up to become public school teachers. We know little about how those with dyslexia make meaning of their educational and life experiences and we know even less about how and why many of these individuals become teachers and what their perspectives regarding best practice are. Educators with dyslexia can be a valuable source of experience and their insights can help us understand best practices for K-12 students with dyslexia, yet their voices are largely unheard. Without the perspectives of these teachers, one consequence could be less than optimal professional development. This study sought to answer the question: In what ways can the education field learn from the experiences of these teachers with dyslexia in order to help guide the field of reading disabilities with respect to best practices?

Purpose of the Study

The purpose of the study was to explore the perceptions of 20 adults with dyslexia—who also are Massachusetts teachers of K-12 students with dyslexia—to discover in what ways their own experiences in and out of the classroom may have

impacted the ways they currently practice in public schools. The insights from these unique teachers contributed to the researcher's deeper understanding of best practices and led to culminating recommendations that may benefit (a) new teachers/teacher candidates with dyslexia, (b) all teachers who work with students with learning dyslexia, and (c) higher education faculty who prepare teachers who work in the field of reading and learning disabilities.

Research Questions

The research questions aimed to uncover:

1. What did teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher?
2. In what ways did teachers' own experiences as learners and teachers with dyslexia influence the ways that they currently practice?
3. In what ways did teachers with dyslexia perceive their learning disability affected their ability and capacity to teach students with dyslexia?

Approach

In order to explore teachers' own experiences in and out of special education and how these experiences have shaped their practice, this study used a qualitative methods approach. Data were gathered in the form of semi-structured individual interviews with 20 special education teachers who have self-reported dyslexia. Further, the researcher performed member checks with four teachers with dyslexia and conducted interviews with three higher education dyslexia experts in order to elaborate upon, enhance,

illustrate, and/or clarify results from the individual interviews. The researcher sought to expand the breadth and range of her research by exploring different data sources.

The planned inquiry did not anticipate the researcher holding the answers prior to the study. The format was interpretive and gave voice, in this case, to a population who often is unheard by using the participants' own words to describe how they have made meaning of their experiences. When guided by a constructivist stance, qualitative research aims foremost to understand meaning for those involved in an event, situation, or phenomenon (Creswell, 2014; Merriam, 2009). Essentially, the focus was on learning "how people make sense of the world and the experiences they have in the world" (Merriam, 2009, p. 13). Qualitative researchers seek to understand as opposed to explain (Stake, 2010).

Chapter III provides in-depth information regarding study methodology and rationales.

Assumptions

The researcher made several assumptions in designing the study, including the assertion that dyslexia was a relevant and current topic of study for the field of education and adult learning. As it is a prevalent type of learning disability that can affect many aspects of daily living, the researcher thought it may be beneficial to explore more closely the lived experiences of those who have dyslexia. It was important to understand the narratives of the study subjects as the public, schools, and educators acquire a more accurate understanding of dyslexia as well as its cognitive, affective, academic, and social ramifications.

Further, the researcher made the assumption that the weaknesses associated with dyslexia are manageable with appropriate interventions and accommodations. Dyslexia is not a condition to be cured, but rather a learning profile that has a unique set of strengths and weaknesses, and those who work with students with dyslexia could benefit from more information about best practices.

Lastly, Morgan and Burn (2000) stated:

Dyslexic adults can bring special skills to the teaching profession; as a result of frustration experienced in their own education, they may have developed both an awareness and a sensitivity to the needs of children who have difficulty developing basic literacy skills. (p. 772)

As such, the researcher assumed that teachers who have dyslexia could be a valuable source of insight into best practices for students with reading disabilities because they have insider awareness and experiences similar to those of the students they teach. It was the opinion of the researcher that the much of the published dyslexia research has taken place outside of literacy education, and teachers' perspectives are rarely heard.

The Researcher

The researcher's background fuses an understanding of dyslexia with a deep commitment to supporting teachers who provide instruction to underserved populations. The researcher began her career working in New Orleans Public Schools with general education elementary students who were underperforming; she sought to learn more about challenges that stemmed from learning disabilities versus challenges that resulted from lack of exposure. The researcher gained this knowledge while completing her master's degree in education and state licensure in special education and undertaking her first multisensory structured reading course. The researcher later taught special education

students in New Orleans, Tucson, and Boston in public schools and a clinical setting. Additionally, she worked as a volunteer adult literacy teacher, teaching learners who had not mastered basic reading skills during their school careers. As an adjunct professor and teacher trainer, the researcher currently serves public school teachers who work with students with dyslexia. Through this work, the researcher observed how many of her teacher clients had their own learning disabilities. This realization motivated her to want to learn more about how these teachers' own life experiences and experiences in special education had shaped their current practice. Professional passions for teaching and serving students with dyslexia as well as keen interest in their teachers with dyslexia have melded in the focus of this study.

Rationale and Significance

The researcher's work centered on teachers in Massachusetts, where the researcher resides. Massachusetts was a state which at the start of the study had yet to establish any specific laws regarding screening for dyslexia in public schools. In October 2018, Massachusetts did adopt legislation (ch. 272, sec. 57A):

to issue guidelines to assist districts in developing screening procedures or protocols for students that demonstrate one or more potential indicators of a neurological learning disability including, but not limited to, dyslexia.

As many as three students in every class of 20 have some markers of dyslexia and the education field does not have practical consensus on how to recognize and educate these students, nor does it have agreement on how to train teachers to meet the needs of students with dyslexia (Moats, 2008). Much of this lack of consensus stems from the

variability in teacher training institutions. Moats (2008) explained the complexity of the situation in school settings:

To some, the term [dyslexia] conjures an obscure disorder of the visual system that produces symbolic reversals and that affects brilliant (Einstein-ish) males of a privileged class. To others, dyslexia is a common condition present in every classroom and walk of life. Its treatment is informed by a trove of interdisciplinary research on identification, classification, and instruction. Not only do people disagree about the meaning of the term, but also if and how dyslexia should be addressed. To some, dyslexia is a unique handicapping condition requiring special education by instructors trained in one of a few specific approaches. To others, dyslexia is a gift of cognition associated with problem-solving ability and creativity. And in some circles, especially some public school environments, dyslexia is such a contaminated term, associated with what are perceived as unreasonable demands by zealous parents or advocates, that its use is discouraged or banned. (p. 7)

In response, grassroots parent groups have sprung up across the country.

Decoding Dyslexia, a particularly popular advocacy group, has chapters in all 50 states.

These state groups seek legal recognition of a scientifically based definition of dyslexia and mandated early screening for dyslexia in public schools (decodingdyslexia.org). They contend research has definitively shown that dyslexia exists at birth and children can be screened validly and economically for at-risk signs before reading instruction begins.

They further seek availability of evidence-based education and remediation programs for general and special education students who show signs of dyslexia. The groups recognize that not all students with signs of dyslexia will need special education services if they are identified early and receive evidence-based intervention in the early grades. They request federal and state resources for and availability of teacher training regarding dyslexia, its warning signs, best practices, and accommodation strategies that help students with dyslexia. Finally, they endeavor to provide public awareness of dyslexia, the challenges it

presents, and recognition that success is attainable with proper intervention (Decoding Dyslexia Massachusetts, 2017).

Dyslexia is a common type of learning disability affecting up to 15% of students. As states continue to develop and pass legislation, awareness and teacher training around dyslexia will become critical. The researcher affirms this study represents a relevant and timely topical endeavor.

Definition of Terms

Candidate - For the purposes of this study, a teacher or preservice teacher enrolled in an education program to earn a degree or teaching license.

Decoding - The process of translating print into speech by rapidly matching a letter or combination of letters (graphemes) to their sounds (phonemes) and recognizing the patterns that constitute syllables and words. There is an area in the brain which deals with language processing and performs this process automatically.

Inclusion - The term captures, in one word, an all-embracing societal ideology. Regarding individuals with disabilities and special education, inclusion secures opportunities for students with disabilities to learn alongside their peers without disabilities in general education settings.

Individualized Education Program (IEP) - This term describes a legal document developed for each public school student who qualifies for specialized instruction through special education. The IEP is created through a team effort, and it is reviewed at least annually. It outlines student goals and benchmarks, frequency and location of direct services, and information about how student progress will be measured.

Language-Based Learning Disability (LBLD) - Refers to a spectrum of difficulties related to the understanding and use of spoken and written language. LBLD is a common cause of students' academic struggles because weak language skills impede comprehension and communication, the basis for most school tasks.

Learning Disability (LD) - A learning profile that gives rise to difficulties in acquiring knowledge and skills to the level expected of those of the same age, particularly when not associated with a physical handicap. It is a broad category that includes dyslexia, dysgraphia, dyscalculia, and processing challenges.

Multisensory - An approach to teaching that engages more than one sense at a time. For students with reading issues like dyslexia, the simultaneous use of visual, auditory, kinesthetic, and tactile senses can be helpful for processing and retaining information.

Special Education - Refers to specially designed instruction that addresses the unique needs of a student eligible to receive special education services. Special education is provided at no cost to families and includes the related services a student needs to access her/his educational program. The Individuals with Disabilities Education Act (IDEA) of 2004 is the federal law guaranteeing a free and appropriate education is provided to eligible students with disabilities. The setting and duration for special education services vary, depending on the needs of the student.

Substantially Separate Classroom - A classroom environment outside of the general education setting for children with significant learning needs. These classrooms serve students who require a highly modified curriculum, smaller class size, and lower student/teacher ratio. Also known as a self-contained classroom.

Researcher Note: The researcher used person-first language throughout this study and, as such, used the term “teacher with dyslexia” rather than “dyslexic teacher.” Any reference to “dyslexic teacher” or “dyslexic student” occurred within a direct quote from a study participant.

Chapter II

LITERATURE REVIEW

A solid body of literature has identified what dyslexia is, the types of challenges that may be associated with this learning profile, results of brain research and teacher knowledge surveys, and suggested practices for teaching literacy skills. There are books and studies of learned experiences of those with dyslexia as well as research on self-determination and how one can be successful despite having a dyslexic profile. What remains largely unexplored is in what ways teachers with dyslexia feel their own experiences have shaped their teaching practices.

Extensive reading of historical and current research in the field has framed the researcher's assumptions, as detailed previously. The background information culled from this investigation framed this study, as outlined in this literature review. The following literature review offers a more complete exploration of the field of dyslexia, current reading interventions in public schools and training models for teachers, and the adult education literature around learning from experience as a lens to understand how teachers learn and reflect on their practice.

In the course of this review, the researcher read educational texts, research articles, published dissertations, and dyslexia organization literature and websites from Fall 2016 to Winter 2018. Initial Proquest inquiries included the following search terms

and phrases: *dyslexia*, *teachers with dyslexia*, *teachers with learning disabilities*, *teachers' knowledge and beliefs about dyslexia*, *personal experiences of dyslexia*, *elementary reading methodologies*, *teaching students with dyslexia*, *dyslexia laws in Massachusetts*, and *teachers with disabilities*. Searches were limited initially to peer-reviewed research from the last 10 years and then expanded to 20 years in order to explore a historical timeline of the topics.

Dyslexia

The most commonly accepted hallmark of dyslexia is difficulty with accurate and/or fluent word recognition, and most researchers accept the theory that dyslexia results from a phonological processing deficit (Torgesen, 1998), which causes difficulty with processing and manipulating speech sounds for reading and spelling. In dyslexia, phonological and decoding difficulties often coexist with word retrieval, spelling, and fluency issues and may result in challenges with comprehension, written expression, vocabulary development, and academic stamina. Studies of those with dyslexia using functional magnetic resonance imaging, or fMRI, show dyslexia is associated with structural and functional alterations in various brain regions that support reading (Shaywitz, 2005).

Despite only a fairly recent move to common parlance, the understanding of dyslexia began in the late 19th century. Societal interest in people with reading difficulties likely began in 1878 with Adolph Kussmaul, a German neurologist who had a special interest in adults who had both reading problems and neurological impairment. He noticed several of his patients could not read accurately and regularly uttered words in

the wrong order; he introduced the term *word blindness* to describe their difficulties (Lawrence, 2009). In 1887, a German ophthalmologist named Rudolf Berlin was the first to use the word *dyslexia* in place of the term *word blindness*. The condition was described as “dyslexia,” from the Greek meaning “difficulty with words” (Lawrence, 2009).

During the 1890s and early 1900s, James Hinshelwood, a British ophthalmologist, published a series of articles in medical journals describing similar cases of word blindness, which he defined as a congenital defect occurring in children with otherwise normal and undamaged brains, characterized by a difficulty in learning to read (McCann, 2016). In his 1917 book *Congenital Word Blindness*, Hinshelwood asserted the primary disability was in visual memory for words and letters, and described symptoms including letter confusions as well as difficulties with spelling and reading comprehension (McCann, 2016).

In 1925, Samuel T. Orton, a neurologist whose work focused primarily on stroke victims, met a young woman who could not read and exhibited symptoms similar to stroke victims who had lost the ability to read. Orton began studying reading difficulties and determined there was a syndrome unrelated to brain damage that made learning to read difficult. Orton called his theory “strephosymbolia” (meaning “twisted signs”) to describe individuals with dyslexia who had difficulty associating the visual forms of words with their spoken forms (Henry & Brinkley, 1999). Orton observed that reading deficits in dyslexia did not seem to stem from strictly visual deficits; he believed the condition was caused by the failure to establish hemispheric dominance in the brain. Influenced by the kinesthetic work of Helen Keller and Grace Fernald, and looking for a way to teach reading using both left and right brain functions (Henry & Brinkley, 1999),

Orton later worked with psychologist and educator Anna Gillingham to develop an educational intervention that pioneered the use of simultaneous multisensory instruction. Teaching strategies they developed during his research are still in use today (Academy of Orton-Gillingham Practitioners and Educators [AOGPE], 2017). It was not until the mid-20th century that children with specific literacy difficulties began to be no longer considered under the jurisdiction of medicine. Educational and psychological research began to accumulate at this time, broadening understanding and refining concepts of child development.

In the 1970s, a hypothesis emerged that dyslexia stems from a deficit in a particular type of phonological awareness called phonemic processing, or difficulty in recognizing that spoken words are formed by discrete phonemes or speech sounds; for example, the word *mat* is comprised from the speech sounds /m/ /a/ /t/. As a result, affected individuals have difficulty associating these sounds with the graphemes which make up written words. Key studies of this type of phonological deficit hypothesis include the finding that the strongest predictor of reading success in school-age children is solid phonemic awareness (Moats, 2008; Torgesen, 1998, 2006) and direct instruction in phoneme awareness can improve decoding skills for children with reading difficulties (National Reading Panel, 2000).

One of the most compelling findings from two decades of reading and phonological processing research is that children who get off to a poor start in reading rarely catch up (Moats, 2016; Torgesen, 1998). The poor first-grade reader almost invariably continues to be a poor reader and the consequences of a slow start in reading become serious as the gap in achievement widens over time. Consequences associated

with failure to acquire early word reading include negative attitudes toward reading, reduced opportunities for vocabulary growth, missed opportunities for the development of reading comprehension strategies (Torgesen, 2006), and fewer instances of actual practice in reading than other children receive (Stanovich, 1986). According to Torgesen (1998, 2006), the best solution to the problem of reading failure is to allocate resources for early identification and prevention.

Knowledge of the brain-based causes of dyslexia has evolved since the 19th century. Recently, scientists have gained insights into the biological mechanisms of dyslexia using functional brain imaging. Compared to typical readers, groups of readers with dyslexia show differences in several brain regions and pathways associated with language, such as the left temporo-parietal cortex, including those responsible for fluent or automatic reading or the ability to read without thinking about each individual word (Shaywitz, Morris, & Shaywitz, 2008). Scientists continue to refine methods for early detection of dyslexia, in some cases even before reading begins, in order to minimize or prevent reading difficulties. Researchers, for instance, have found that many children who begin speaking later than average are diagnosed with dyslexia more often (Moats, 2008). Researchers continue to study learners from infancy to adulthood and present their findings at brain, learning, and educational conferences throughout the world.

Reading Interventions

In the review of the literature focused on adults with dyslexia, a theme that appeared consistently was an association between negative traditional K-12 school experiences and a weakened sense of emotional well-being, culminating in feelings of

low self-esteem. Many adults with dyslexia recalled their early school experiences as a collection of hurtful, embarrassing, and scary experiences, particularly with regard to reading. Adults with dyslexia reported frustration with language-based tasks, problems in being recognized as having dyslexia, and inadequate opportunities for help (Gibson & Kendall, 2010). They often were reminded of their deficiencies in language-based tasks by teachers who lacked understanding of dyslexia, and they were teased by peers. In her 2001 essay, “In the LD Bubble,” from an anthology of narratives in *Learning Disabilities and Life Stories*, Lynn Pelkey (2001) summed up her school experiences:

Being LD was not something we received awards for. It was secretive and suspicious. It was something talked about in hushed tones. It was discussed at secret parent/teacher meetings. It was the reason I had to go to summer school. Is it any surprise that, even before I knew what LD meant, I was ashamed about being dyslexic? It was obviously something that was not good, and I had it.
(p. 19)

Another key literature theme that arose centered on academic placement and programming for students with dyslexia. Qualitative studies highlighted the ways participants reported feeling when they were removed from class for remedial services and their subsequent support for inclusion for students with learning disabilities (Ferri, Keefe, & Gregg, 2001; Reiff, Gerber, & Ginsberg, 1996). Several respondents in these studies reported feeling resentful that they needed remediation in another setting, yet they realized their need for support to be successful in the regular classroom setting. Others reported the stigma they felt in having to work on skills in a setting that peers perceived as “lower.” As Pelkey (2001) recalled:

We were no longer equal. At times, I was physically separated from my classmates. During these times, I was brought to the “special” room where I would receive help with my school work in hopes of bringing me “up to my class level.” No one ever said this to me directly; it was what I overheard. “She is not doing as well as the other children,” “She is having difficulty,” “Scoring low,”

“Not trying,” “Lazy.” I knew the latter two were not true but they certainly did not make me feel good about myself. It was in these ways that I became *less than*.” (pp. 18-19)

The struggles and vivid memories reported in the literature are not surprising. Learning to read is not a natural process, and it is significantly more challenging when a student has a learning disability. Adding to the challenge is that educators may use reading interventions that are not scientifically based, causing continued failure and anxiety. Steven Pinker passionately argued in his Foreword in Diane McGuinniss’s (1997) book *Why Children Can’t Read and What We Can Do About It* that reading needs to be directly taught using scientifically based methods:

Children are wired for sound, but print is an optional accessory that must be painstakingly bolted on. This basic fact about human nature should be the starting point for any discussion of how to teach our children to read and write. It is a national tragedy that this common sense understanding has been so uncommon. We are turning into a nation of illiterates, the victims of misguided ideas about the nature of reading and how to teach it. All the familiar techniques were devised before we had a scientific understanding of reading, and they are based on theories that we know are wrong. (p. 6)

The history of modern reading instruction is, to some degree, the history of pendulum swings between two approaches simplified as “bottom-up” or “top-down.” The bottom-up approach teaches parts-to-whole, starting with speech sounds and the letters that represent them as building blocks and moving up to translating letters into sounds in order to read decodable words, sentences, and longer text. In this approach, phonics skills are taught systematically and students practice blending sounds until the words become automatic. Students with dyslexia often exhibit weaknesses in underlying language skills involving speech sound (phonological) and print (orthographic) processing and in building brain pathways that connect speech with print. Most students with dyslexia have weak phonemic awareness, meaning they are unaware of the role sounds play in words.

These students may also have difficulty rhyming words, blending sounds to make words, or segmenting words into sounds for spelling. Because of their trouble establishing associations between sounds and symbols, they also have difficulty learning to recognize words automatically or fast enough to foster comprehension. If they are not accurate with sounds or symbols, they will have trouble forming visual memories for common words (Adams, 1990). A “bottom-up” or structured phonics approach uses specialized and systematic instruction to master the alphabetic code and to form those memories.

Multisensory input is often engaged (National Reading Panel, 2000); this involves the use of visual, auditory, and kinesthetic-tactile pathways simultaneously to enhance memory and learning of written language. For example, in spelling, students segment the sounds in a word, then name the letters aloud while writing them so that they see the letter, hear the letter name, and use tactile senses to form the letter by hand at the same time.

A typical structured and multisensory phonics lesson, taught in a one-to-one, small group, or whole class setting, involves completing a phonogram drill where students look at each letter or combination of letters and tell all the sound combinations it represents; reading phonetically regular words on flashcards or in a list (without context); categorizing words by syllable pattern or breaking longer words into syllables in order to decode them; reading decodable passages or books where the majority of the words follow the regular patterns of English; spelling sounds, decodable words, and sentences from dictation; and practicing handwriting. Decoding and spelling concepts are taught in an organized manner, moving from most common to least common patterns in the language, with continuous practice and spiraled review. Students are not asked to read or spell anything that has not been directly taught. The goal is accuracy and automaticity,

which takes significant practice to ensure. In this type of teaching, the teacher moves as quickly as he or she can but as slowly as required to meet the needs of individual students. As such, the teaching is customized and does not rely on keeping up with the pacing of a scripted program.

In contrast to teaching systematic phonics, the top-down approach espouses the belief that learning to read and write can be as natural and effortless as learning to perceive and produce speech (Liberman & Liberman, 1990). This instructional philosophy teaches students to read through meaning, using engaging texts to develop comprehension. Teachers instruct students to use context clues, prediction, and pictures to help unlock the meaning of the story or passage. Teachers address phonics skills in a more incidental way, explaining these skills as needed to glean meaning from the given text (Adams, 1990; Liberman & Liberman, 1990). Chosen texts are classified using various parameters such as word count, number of different words, number of high-frequency words, sentence length, sentence complexity, word repetitions, and illustration support. While classification is guided by these parameters, syllable pattern—an important consideration in beginning reading—is not considered as part of the leveling system. For example, in Pinnell and Fountas's (2010) *Leveled Literacy Intervention*, short books containing a combination of text and illustrations are provided to educators for each level. In a typical small group lesson, 2-6 students work together with a teacher for a 20- to 30-minute session. Such a lesson includes several components. First, the teacher will access background knowledge, build schema, set a purpose for reading, and preview the text with students. Typically, the group will engage in a variety of pre-reading activities such as predicting, learning new vocabulary, and discussing various

text features. If applicable, the group may also complete a “picture walk.” This activity involves scanning through the text to look at pictures and making predictions about how the story will progress. The students will engage in a conversation about the story, raise questions, build expectations, and notice information in the text (Pinnell & Fountas, 2010).

During reading, students will read independently within the group. As students read, the teacher will monitor student decoding and comprehension. The teacher may ask students if something makes sense or prompt them to use a learned strategy. The teacher makes observational notes about the strategy use of individual students and may also take a short running record of a student’s oral reading. The students may read the whole text or a part of the text silently or softly for beginning readers (Pinnell & Fountas, 2010). Following the reading, the teacher will again check students’ comprehension by talking about the story with the group and may return to the text for teaching opportunities such as finding evidence to support an idea (Pinnell & Fountas, 2010). The teacher also uses this time to assess the students’ understanding of what they have read. To extend the reading, students may participate in activities such as drama, writing, art, or more reading.

The above discussion is a simplification of two camps of thought around how elementary students best develop the ability to read. Both approaches currently are in use in public and private schools in the United States (AOGPE, 2017). One aspect of this study’s area of inquiry asked which (if any) approaches or strategies teachers with dyslexia believe are the most effective for struggling readers. The inquiry asked in what ways teaching methodologies and other accommodations were successful for these

teachers, and what these teachers have gleaned from their own experiences in learning to read.

Teacher Training

Whether they have dreamed of becoming a teacher since childhood or made a career change later in life, teachers in public schools must obtain a teaching license. To obtain an initial license in moderate special needs in the state of Massachusetts, an undergraduate student must complete a Department of Elementary and Secondary Education-approved program of study, which includes a practicum and student teaching experiences. Additionally, he or she must pass several state tests in mathematics, communication, foundations of reading, and sheltered English immersion (Massachusetts Department of Elementary and Secondary Education, 2017). The approved program of study includes nine credits (three courses) focused on instructional theory and methods for teaching reading and language arts to atypical learners. For example, the education department at Fitchburg State University offers the following courses for initial licensure as a moderate special needs teacher of Prekindergarten through Grade 8: EDUC 2630 - Literacy in the Pre-K to 8 Classroom; EDUC 2640 - Language Arts: Theory to Practice PreK-8; and SPED 2800 - Strategies in Reading Instruction and the Assessment of Reading. In addition to these three courses, candidates complete a practicum year where they work with students in the classroom under a supervising teacher (Fitchburg State University, 2017). These state requirements for reading instruction in a special education teacher training program are similar to those in other states.

Once licensed teachers are hired to teach in a school district, they may participate in in-service professional development courses, attend conferences, or go on for an advanced degree or an additional teaching license to further their knowledge of how to teach struggling learners to read. Generally, specialized approaches to teaching learners with dyslexia are not specifically taught as part of the core course in teacher preparation programs. As such, many teachers may learn “on the job” how to best meet the needs of weak or at-risk readers. Public school districts may engage teachers in professional development workshops or courses; however, many of these opportunities are dependent on funding and thus are not guaranteed. Opportunities may range from a 4-hour in-service workshop to a year-long training with practicum supervision. Districts with attuned leadership may plan multiyear training across grade levels, while a less informed or under-resourced district may hire teachers with some previous training. This often results in a patchwork of providers with varying skill levels. As such, a student with dyslexia may experience differing levels of teacher knowledge and training as he or she progresses through the grades.

The next section outlines research related to those with dyslexia seeking to become teachers.

Experiences of Teachers With Dyslexia

This portion of the literature review sought to understand the motivations and journeys of those with dyslexia toward becoming teachers of those who learn differently. The researcher reviewed research articles which spoke to the unique situation of a teacher with a learning disability who could speak “from both sides of the desk” (Ferri et al.,

2001). This led to further investigation of teacher training programs that support trainees with dyslexia and the coping strategies higher education students use to complete their university studies and student teaching requirements.

Much of the reviewed research centered on empathy, perseverance, and awareness in college students, teacher candidates, and teachers with dyslexia (Glazzard & Dale, 2013; Griffiths, 2012; Reiff et al., 1996; Riddick, 2003). Key themes included disclosure, seeking disability services and accommodations, instructor knowledge, and emotional and attentional co-morbid challenges. An important finding from O'Shea and Meyer's (2016) qualitative interview study of college students with "invisible" disabilities was that the students' motivation and decision to utilize support services were "framed by the level of acceptance of their disability"—that is, their integration of their disability to their "authentic self" (p. 10). Finally, self-determination was an important factor in higher education success for students with dyslexia (Glazzard & Dale, 2013).

Several themes emerged in the research studies involving teachers who have their own reading disabilities or dyslexia. One theme addressed disability models—whether we think of learning disabilities (LD) as a deficit model or a difference in thinking, and how some adults with LD have dismissed the fact that they have a "disability" (Pollak, 2005; Riddell & Weedon, 2014). Conversely, the formal recognition of dyslexic-type difficulties functioned as a source of relief for many study subjects. This theme of awareness encompasses both sides of the issue. In the latter framework—whether study subjects were identified in elementary school or in college—there seemed to be a generally positive response to having something "to call it."

In other studies involving teachers (Burns, 2015; Ferri et al., 2001), participants revealed that the formality and objectivity of their eventual dyslexia diagnosis were emancipating; it provided them with assurance that their difficulties were not linked to intelligence. This understanding served as an initial advancement towards heightened self-awareness and subsequent disclosure in the workplace. Hence, the theme of disclosure emerged in many studies (Burns, 2015; Ferri et al., 2001, Griffiths, 2012). Teachers reported hesitation about disclosing their learning disabilities to educational administration for fear of misunderstanding, and others described their disclosure as akin to “coming out” as a gay person (Valle, Solis, Volipitta, & Connor, 2004). Other teachers refrained from keeping their dyslexia a secret and disclosed their own learning challenges to their students as a way to motivate and empower them (Burns, 2015).

Another literature theme involved difficulties in the practice of teaching (Burns, 2015; Ferri et al., 2001) and highlighted the fact that despite their cognitive and subject-matter strengths, many teachers experience challenges in some work situations. These situations related to specific tasks that required not only accurate and often quick phonological processing and sequencing skills, but also writing and record-keeping skills.

A final general theme about how it feels to be a teacher with dyslexia denoted that although teachers might feel they are challenged by the working environment, they also consider having dyslexia to be an advantage. It offers them additional sensitivity to recognize, empathize, and help students who have difficulties with their studies (Ferri et al, 2001).

Adult Learning Theory as Framework for Interpretation: Learning From Experience

In the quest to explore how teachers with dyslexia have reflected on and learned from their experiences in special education, a consideration of how humans learn from experience was undertaken. In broad terms, two components of experiential learning recur across the varied models of learning. Primary to this work is the position that learning is an interaction between the learner's unique life history, experiences, perspectives, worldview, and the learning experience. Second is the need for reflection on the experience for this interaction to move from a simple experience into learning.

In the adult education tradition, learning that takes place through everyday life experiences has long been distinguished from formal school-type learning (Fenwick, 2000). However, the term *experiential learning* has been used to refer to learning that takes place in everyday life, often without the learner realizing that learning is taking place, and the learning that occurs in structured and designated learning spaces such as classrooms where the adult educator constructs learning experiences such as role plays (Brookfield, 1993). Miller (2000) distinguished between the two, using the term *learning from experience* (LFE) to describe learning that happens in everyday contexts as part of day-to-day life. In contrast, experiential learning is part of a more specialized discourse, referring to an activity with which professional experiential educators are concerned and can include activities where participants are actively engaged.

The reflective school focuses on how the individual constructs knowledge from interacting with the environment; thus, the history of that individual is primary to understanding the educational experience. Dewey (1938), a foundational theorist, had

ideas that are broader than those who built on his work. Like constructivists, Dewey noted the importance of the learning context and that misguided assumptions or inaccurate reflection can make it possible for us to mislearn from our experiences and describe humans as agents in the creation of their own existence (Wilson & Hayes, 2000). Finally, Dewey's work laid the groundwork for individualistic theorists like Kolb, who noted experience is always an interaction between the individual and the environment (Merriam, Caffarella, & Baumgarten, 2007).

Kolb is one of the primary researchers associated with the individualistic, constructivist construction of experiential learning. Kolb described a spiral of learning stages: planning, acting, reflecting, and concluding. Here, experiential learning initiates with a concrete experience, leading to reflective observation, abstract conceptualization, and, finally, active experimentation. Four skills are gained through learning from experience, each based on the corresponding places in the cycle: *planning* develops openness and willingness to try new experiences; *acting* builds observational and reflective skills; *reflecting* strengthens analytical abilities; and *concluding* increases problem-solving skills (Merriam et al., 2007, p. 164). According to Kolb's model, learning experiences must include space for both reflection and action. Reflective practice leads to action, and then the cycle restarts. For Kolb, the ultimate goal of learning is the fully integrated personality, and learning must involve an interaction between the person and the environment.

Unique among the theorists reviewed, Jarvis (in Merriam et al., 2007) noted that there are two types of learning through experience—non-reflective learning, or remembering and repeating an experience; and reflective learning, the highest form of

learning. Jarvis further recognized the possibility of non-learning—either through flawed or absent reflection and reintegration of experiences into the existing cognitive schema of the learner. In Jarvis’s model, learning begins with a disjuncture between biography, our identity at that moment, and experience, an event that upsets our sense of self (Merriam et al., 2007, p. 100). According to Wilson and Hayes (2000), reflective learning can be either confirmative or transformative—confirmative if it reinforces the learner’s existing schema, or transformative if it creates a disruption of held beliefs (p. 544).

According to Merriam et al. (2007), Jarvis held that our construction of experiences is affected by our psychological history. The more familiar an experience, the less likely we are to learn from it, since we choose familiar actions and patterns which reinforce our previous perceptions. We do not challenge or expand our knowledge (p. 164). In recognizing the situatedness of experience, Jarvis demanded that we focus on the role of context and power in learners’ experiences, stating that adult learning does not occur in “splendid isolation” (Wilson & Hayes, 2000, p. 300). The context for the learning event is the learner’s world, which reinforces the need for deep understanding of the learner’s world offered through qualitative research inquiry.

Boud, Cohen, and Walker’s Propositions of Experiential Learning

Some forms of learning are based on the seeker’s experience. Experiential learning may be defined as the “process of creating and transforming experience into knowledge, skills, attitudes, values, emotions, beliefs and senses. It is the process through which individuals become themselves” (Jarvis, Holford, & Griffin, 1988, p. 48). Experiential learning is only one of the strategies that can lead teachers with dyslexia to reflect on their learning and practice. It is the work of Boud, Cohen, and Walker (1993)

that best fits with the constructivist assumptions held by this researcher. As such, following is a brief overview of the work of these authors and the propositions on which they built their theory of experiential learning. Additionally, connections to the propositions most relevant to teaching and teacher training will be made.

For Boud et al. (1993), experience—the fundamental starting point for experiential learning—is not an event which happens; it is an event with meaning. This learning therefore requires an “active engagement with the environment, of which the learner is an important part” (p. 6). Understanding this interactivity and being able to reflect on it are key reasons the learning-from-experience lens was selected as a tool for analysis. These theorists asserted that “our personal history affects the way in which we experience and what we acknowledge as experience” (p. 9). It is this level of individuality of experience that requires qualitative research such as this study to explore the background carried by each learner to his or her future work and methodological choices. From these initial assumptions about the nature of learning and learners, these authors drew five propositions, which are outlined as follows.

The first proposition is experience is the foundation of, and the stimulus for, learning. Inherent in this belief is the assertion that learning only happens when the learner is engaged. Learners create meaning for new experiences by relating these to what came before. Additionally, every experience has potential for learning. This potential is not always realized for a variety of reasons, however, including a lack of engagement or a lack of prior, relatable experience to contextualize the new events. Finally, learning can include a reconsideration of earlier events, often through later reflection in which learners may seek new meanings in old experiences. Fundamental to this and the subsequent

propositions is the role of reflection. Boud et al. (1993) defined this as “those processes in which learners engage to recapture, notice, and re-evaluate their experience, to work with their experience to turn it into learning” (p. 9).

The second proposition is that learners actively construct their experience. This proposition shifts focus from the event to the personal experience of the event. It includes assumptions that learners attach their own personal meaning to events, and this meaning is subject to interpretation. Boud et al. (1993) asserted that both expectation and purpose frame a learner’s interaction with the experience. They also nodded to the work of the Frankfurt School of critical theory, noting the impact of external socialization on the individual experience and stating that a learner’s “personal foundation of experience,” including their personal and cultural history, has a major influence on the meaning they assign to particular events. Key to the use of interviews in this research is the statement regarding the embeddedness of this experience and cultural assumptions: “Knowledge of one’s personal foundation of experience may be well-guarded; it is certainly not readily accessible to the learner or to others” (p. 11).

Third, learning is a holistic process. As with proposition two, Boud et al. (1993) emphasized the situatedness of the learning event. They noted three parameters—cognitive, affective, and psychomotor—which may be balanced differently in each context. However, they noted “it is impossible to dissociate the learner from his or her context, from the processes in which they are involved or from their past experience” (p. 12). This reinforces the need to consider not just the instant of the learning event, but the impact of the experiences that came before. They noted that while the cognitive parameter is most commonly prized in academia, all three parameters are required for

understanding the learning event. Finally, in speaking to the importance of a learner's prior knowledge and experiences, they stated "learning is not readily constrained by time or place; all learning includes all prior learning" (p. 13). In one such reflective study (Duquette, 2000) involving four students with disabilities who were enrolled in a postgraduate teacher training program, the participants reflected on how a disability and previous school and life experiences influenced their early teaching practice. The participants reflected on negative elementary and secondary school experiences, disability acceptance, and their desire to not replicate the teaching methods to which they had been exposed.

The fourth proposition is that learning is socially and culturally constructed. Learners do not exist independent of their environment. While we cannot step beyond the influence of context and culture, their influence can be recognized through critical reflection that is designed to examine assumptions (Boud et al., 1993). While having participants examine their own assumptions was not an element of the present research, consideration of the cultural background of participants was a significant concern when a population includes learners from a diversity of backgrounds such as those in the population under consideration. As noted by Boud et al., language mediates experience and learning. "The most powerful influence of the social and cultural context on our learning is that which occurs through language. We have words and concepts in our language for some experiences, but not others" (p. 14).

Finally, the fifth proposition states that learning is influenced by the socioemotional context in which it occurs. This proposition connects well with the proposed research participants. While challenging to reach, an important aim was to

include research subjects who represented a variety of backgrounds, schooling experiences, supports, and coping mechanisms in order to glean their reflections about best practices in their field. Boud et al. noted that this emotional context is influenced both by past experience and by interactions with others in the present as supportive or otherwise. In a research study about reflective practice and identity construction, Woodhouse (2012) commented about her research with 75 teachers with dyslexia: “What is notable about these experiences is that all of the individuals have degrees, postgraduate teaching qualifications, and are engaged in Master’s level study, yet their experience early on in their educational life still impacts upon how critical they are of themselves” (p. 753). The fact that the participants in Woodhouse’s study were willing to share their experiences with the researcher and their peers pointed to their commitment to ensuring their students and future students have a positive educational experience.

Boud and Walker’s (1990, 1991, 1993) Model

Merriam, Caffarella, and Baumgartner (2007) treated Boud and Walker’s (1990) learning model, which reappears in Boud and Walker (1991, 1993), as an example of learning from experience from a situative perspective. Boud and Walker (1990) advanced Kolb’s model by considering the learner, what the learner brings with him, and the milieu in which the learning takes place. They explained that “experience can be seen as a continuing complex series of interactions between learners and the learning milieu” (Boud & Walker, 1991, p. 18). In this way, Boud and Walker (1990) indeed challenged the notion of learning as an individual endeavor of reflection by “using a contextual or sociological frame” (Merriam et al., 2007, p. 166).

In addition to consideration of the learning context, Boud and Walker (1990), unlike Kolb (1984), also took into account the role of emotions in learning. They posited that “on occasions our emotional reactions can override rationality.... Learners who do not observe this affective dimension of their experience may undermine the value of their reflections by restricting them to one aspect of their response to the world around them” (pp. 28-29). Brookfield (1993) also highlighted the importance of understanding a learner’s feelings and emotions as empathy for what it is like when they encounter something unfamiliar or difficult.

Boud and Walker’s (1990) model is based on five main assumptions:

(a) experience is the foundation of and the stimulus for learning; (b) learners actively construct their own experience; (c) learning is a holistic process; (d) learning is socially and culturally constructed; and (e) learning is influenced by the socioemotional context in which it occurs (Boud, Cohen, & Walker, 1993). Divided into three major phases, the first stage emphasizes the preparation prior to the learning event. The learner, his or her previous experiences, and the way he or she is “being present to the world” (Boud & Walker, 1990, p. 62) can all influence how a person makes meaning. Further, the milieu can affect the learner in ways that he or she is not aware. Where a person learns can affect one’s thoughts, feelings, and actions during the learning event. Finally, in the preparation stage, the learning skills and strategies a person brings can equip the learner to optimize the opportunities for learning.

The second stage depicts learning during the event. The learner interacts with the milieu by reflecting-in-action through *noticing* and *intervening*. Noticing is a kind of heightened awareness of what may be happening in and around the learner. That is, the

learner attends to both the internal and external worlds. This may entail “taking a break” to take stock of events from other perspectives or to decide to immerse oneself fully in the experience. Intervening refers to deliberate actions the learner takes as the event unfolds to affect the learning milieu or the learner. Both noticing and intervening are influenced by the learner’s foundation of learning. That is, the learner’s own perspectives influence what is noticed, how he or she intervenes, as well as what data are selected and used for the reflective process.

The third stage represents the learning after the event. This stage constitutes returning to the experience, attending to feelings, and reevaluating the experience. First, the learner needs to recapture the lived experience as it was experienced at the time. Also, the learner focuses on the feeling and the emotion present during the experience. Boud (1994) contended if feelings were negative, they may need to be “discharged or sublimated, otherwise they may continually colour all other perceptions and block understanding” (p. 4). On the other hand, positive feelings can perhaps be celebrated as springboards for further learning. Finally, the learner can reevaluate the experience through these four aspects: association, or relating new information to that which is already known; integration, or seeking relationships between new and old information; validation, or determining the authenticity for the learner of the ideas and feelings which have results; and appropriation, or making knowledge one’s own or a part of one’s normal ways of operating (p. 4).

Due to the emphasis on reevaluating the lived experience, the researcher of this study on how teachers with dyslexia may have learned from their experiences has chosen to use Boud and Walker’s (1990) model as the primary lens. Boud and Walker

emphasized both reflection-in-action and reflection-on-experience, which are vital to the practice of teachers.

Reflective Practice

Reflective practice is a process whereby individuals assume the perspective of an external observer to identify and challenge assumptions and feelings that underlie their practice and then to speculate about how these assumptions and feelings influence their practice. Boud, Keogh, and Walker (1985) built on the work of Dewey. They emphasized emotion as an element of the reflective process and stated that reflection requires individuals to recapture their experience, to think about it, to mull it over, and to evaluate it. These authors further outlined three phases in the reflective process: (a) returning to the experience and recalling salient events; (b) connecting with feelings, where one uses helpful feelings and removes obstructive ones; and (c) evaluating the experience by reexamining the experience using the original intent and existing knowledge and integrating new knowledge. The participants in this study used reflective practices to revisit childhood experiences as students with dyslexia and further used reflective practices to contemplate their current teaching.

This literature review provided a summary of the current understanding of the field of dyslexia, reading intervention methodologies, teacher training models, and a brief overview of the adult learning theory of learning from experience.

Chapter III

METHODOLOGY

Overview and Rationale

This chapter begins with an explanation of why the employment of a qualitative research approach was suitable for exploring the life experiences of teachers with dyslexia. This explanation includes discussion of the selection criteria to determine the participant samples and an outline of the types of information that were sought. Procedures for collecting and analyzing the data are described. Finally, the chapter concludes with a discussion of issues of trustworthiness and limitations of the study.

In order to explore special education teachers' own life and school experiences with dyslexia and how these experiences have shaped their practice, this researcher used a qualitative methods approach. Stake (2010) explained that "one of the most important methodological differences between qualitative and quantitative [methodologies is] the difference between (1) aiming for explanation and (2) aiming for understanding" (p. 19). In the quest to understand, the researcher gathered data in the form of semi-structured individual interviews with 20 special education teachers who also have dyslexia to learn in what ways their own life experiences and time receiving special education services as students impacted the ways they currently practice in public schools and understand what best practice is to them. In order to triangulate data, the researcher then discussed the

research findings with four individual teachers with dyslexia. Finally, the researcher conducted interviews with three higher education instructors who specialize in learning disabilities, dyslexia, and teacher preparation. In this way, the researcher “look[ed] and listen[ed] from more than one vantage point” (Stake, 2010, p. 123). See Table 1 for a summary of the research information sought and the methods used.

Qualitative research that is guided by a constructivist stance aims to understand meaning for those involved in an event, a situation, or a phenomenon (Creswell, 2014; Merriam, 2009). Different from experiments conducted under controlled parameters, qualitative research is conducted in the natural setting and emphasizes that each context is unique and should be described in detail (Stake, 2010). Additionally, the research structure recognizes the researcher’s role and makes explicit the researcher’s own ideas and influence on the research ideal for a researcher who sees learning as a constructivist enterprise (Creswell, 2014). A person’s background and what he or she has experienced will impact how he or she interprets and makes sense of the world. The researcher’s openness and receptivity are valued (Robson, 2011). The researcher’s role is “personal”; the researcher is an instrument, “observing action and contexts...using his or her own personal experience in making interpretations” (Stake, 2010, p. 20). Therefore, not only is the researcher’s own history integral to how events will be interpreted and reconstructed, but the background of the study participants is also important in informing how meaning is ascribed to the world. Thus, the purpose of research from a constructivist approach serves to look for patterns of meaning from stories through engagement in dialectical interchange with respondents who are acknowledging different vantage points through which reality is conceived (Creswell, 2014).

Table 1

Research Information Sought and Methods Used

Information Sought	Method(s) for Data Collection
Background information:	
Dyslexia: definition, prevalence, manifestations, history, laws, research	Literature Review, Expert Interviews
Special education teacher training and research	Literature Review, Expert Interviews
Learning from experience	Literature Review, Semi-structured Interviews
Demographic information of subjects:	
Participants' demographic information: age, gender, place of employment, years of experience, position	Pre-interview phone call, Semi-structured Interviews
Contextual information from subjects:	
Type and setting of special education services as a student	Semi-structured Interviews
Current special education setting as a teacher	Semi-structured Interviews
Perceptual/interpretive information from subjects:	
Recollections of positive experiences as a special education student	Semi-structured Interviews
Recollections of negative experiences as a special education student	Semi-Structured Interviews
Recollections of positive experiences as a teacher	Semi-structured Interviews
Recollections of negative experiences as a teacher	Semi-structured Interviews
Description of preferred teaching setting	Semi-structured Interviews
Description of preferred teaching methodology/ies found to be successful	Semi-structured Interviews
Recollections of decision to become a special education teacher	Semi-structured Interviews
Reflections on learning from own experiences	Semi-structured Interviews
Recommendations for new teachers, all teachers who work with students with dyslexia	Semi-structured Interviews
State of the Art—Teaching practices:	
Currently accepted practices for teaching reading to students with dyslexia	Literature Review, Expert Interviews, Semi-structured Interviews
Teacher training regarding dyslexia	Literature Review, Expert Interviews

Qualitative inquiry was necessary to explore a topic as complex as learning and teaching with dyslexia, especially within a population as diverse as this sample. This worldview assumes truth is not “something out there” to be discovered and understood, as with positivism and postpositivism, but rather it is a construction based on individual perspectives (Guba & Lincoln, 1994).

The Study Sample

Individual Teacher Interviews

After the proposal hearing and Institutional Review Board (IRB) approval, the researcher sought the interview study participants. The study sample for the interviews was drawn purposefully from a population of public school K-12 special education teachers in Massachusetts who self-identified as dyslexic and who received reading interventions on an Individualized Education Program (IEP) during their own school careers. The researcher did not require participants to provide diagnosis of dyslexia, but required that participants had received special education services for a reading disability. Study candidates were recruited through researcher email inquiry and subsequent snowball effect of referrals. The researcher sent an email to her professional network and posted an email announcement to the Massachusetts branch of the International Dyslexia Association (IDA) and on listservs at Simmons University graduate school and Fitchburg State University, which prepare teachers in the field of structured and multisensory reading approaches. Criteria for participation in the interview portion of the study were adults who met the following four conditions:

1. were current K-12 special education teachers in any public school in Massachusetts, and
2. were diagnosed with a specific learning disability in reading/dyslexia at any time in their K-12 schooling years, and
3. received special education support in any setting during their K-12 career, and
4. were willing to reflect on their special education experiences, life journey with dyslexia, and current teaching practices, and to share those reflections confidentially.

The subject sample was comprised of 20 research subjects, later stratified into four groups based on the educational setting where they received special education services as well as the setting where they currently practice. The researcher conducted semi-structured one-to-one interviews with these 20 teachers of students with dyslexia. The purposefully selected sample included participants in each of the following four groups: (a) eight teachers who attended an inclusion program during their elementary or secondary years and now worked in an inclusion program; (b) four teachers who attended an inclusion program and now taught in a substantially separate model; (c) four teachers who attended a substantially separate program and now taught in the same type of program; and (d) four practitioners who attended a substantially separate program and now taught in an inclusion program (see Figure 1). The purpose for using these categorical criteria was to explore in what ways educational placement impacted their educational journeys and to determine if any patterns could be drawn.

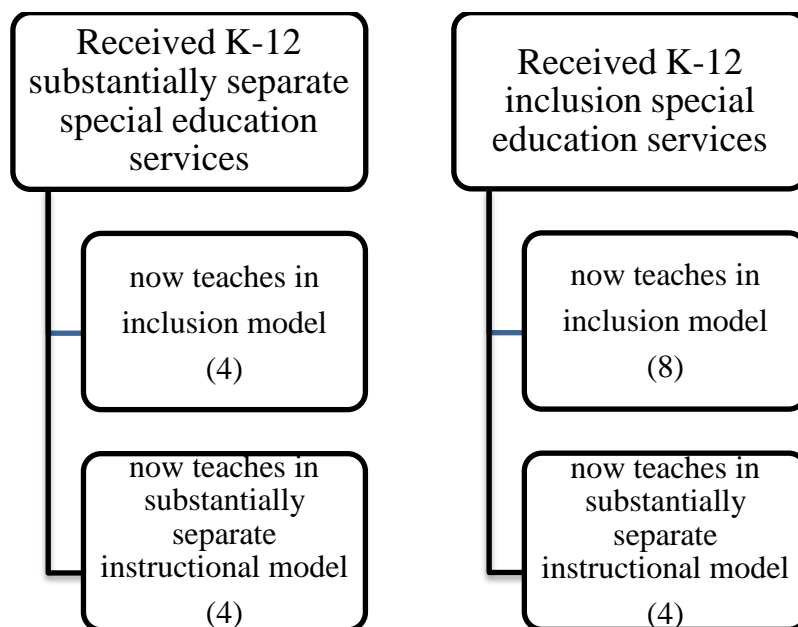


Figure 1. Teacher sample

The original design plan was to include equal numbers of teachers from each group. The final study sample included more teachers who work in inclusion classrooms since these are more common instructional settings due to laws around serving students in the Least Restrictive Environment (LRE). As such, the researcher interviewed 12 teachers who worked in such settings instead of the anticipated 10 teachers. Every effort was made to seek a sample that reflected the teaching population in the state of Massachusetts. Since the majority of K-12 teachers are female, the study sample reflected this. The researcher made an effort to seek male participants; two male teachers participated in the teacher interviews and one served in a member check role. Additionally, diversity in the racial backgrounds and childhood socioeconomic status of the participants was sought. Finally, diversity was taken into consideration in the grade levels represented by the teachers as well as in the schools where the participants currently taught, ensuring representation from those working in Title 1 schools and a mix

of urban, rural, and suburban schools. In doing so, the researcher did not rely on convenience sampling but instead on gathering a study sample that was, to the degree possible, representative of the special education teaching force in Massachusetts.

Study Participant Profiles

Table 2

Study Participants

Group 1: Attended a substantially separate program and now teach in inclusion settings

Pseudonym	Age	Demographics	Teaches	School Location
Samantha	41	WF	Elementary	Urban
Betty	55	WF	Elementary	Suburban
Amanda	42	WF	Elementary	Urban
Kate	38	WF	Elementary	Suburban

Group 2: Attended a substantially separate program and now teach in the same

Pseudonym	Age	Demographics	Teaches	School Location
Missy	28	WF	Elementary	Urban
Helen	36	WF	Middle School	Rural
Laura	56	WF	Elementary	Suburban
Jack	49	WM	High School	Suburban

Group 3: Attended an inclusion setting and now teach in the same

Pseudonym	Age	Demographics	Teaches	School Location
Angelica	27	HF	Elementary	Urban
Lexi	24	WF	Elementary	Urban
Erica	47	WF	Elementary	Suburban
Max	26	WM	Elementary	Urban
Jamie	24	WF	Middle School	Urban
Sofie	30	BF	Elementary	Urban
Julia	24	WF	Elementary	Suburban
Megan	39	WF	High School	Suburban

Group 4: Attended an inclusion setting and now teach in a substantially separate program

Pseudonym	Age	Demographics	Teaches	School Location
Christina	25	WF	High School	Suburban
Meredith	28	WF	Elementary	Suburban
Willow	28	WF	Elementary	Suburban
Hannah	33	WF	Middle School	Suburban

Group 1. Samantha was a 41-year-old elementary special education teacher working in an urban district who, as a child, attended special education services primarily in a self-contained class. Most notably, she recalled, “For sixth, seventh, and eighth, I was with children who were in their own room and kids in the cafeteria would call me ‘sped.’ I kind of acted out and I stopped working.” Samantha remembered self-advocating to be removed from the separate middle school classroom and she was mainstreamed into general classes for her high school years. As a teacher, she worked in both the regular classroom and with small groups of students in a learning center. She was trained in the Orton-Gillingham approach and supported structured and systematic phonics instruction. She also had two children of her own whom she entered into a dyslexia study as babies to help researchers identify brain markers for dyslexia before children enter school. Samantha planned from a young age to be a teacher or occupational therapist.

At 55, Betty was one of the older participants in the study. She recalled traumatic experiences as a child in a substantially separate classroom where she only remembered feeling misunderstood and “always doing poorly.” She lamented that her papers “were always marked up with red.” Betty struggled with academics and emotional regulation throughout her school years. She applied to and was rejected by 25 colleges; she eventually attended a specialized transition year to college and then completed her bachelor’s and master’s degrees as well as teacher licensure. Betty continued to struggle with auditory processing weaknesses and anxiety. Due to her learning experiences, she worked diligently to protect the self-esteem of her elementary students, whom she taught

in small groups in a learning center model where she worked with them in the Orton-Gillingham approach. Her students participated most of the day in the regular classroom. From an early age, Betty wanted to become a psychologist, counselor, or teacher.

Forty-two-year-old Amanda came from a family with a history of dyslexia and her challenges were identified in second grade. Her school district funded her to attend a special private school for students with dyslexia for several years, where she remembered “finally learning to read.” She then attended a specialized self-contained public middle school program and was mainstreamed at her public high school. Amanda did not immediately attend college but eventually was accepted to an Ivy League school at age 25. “I worked with a tutor throughout the years before and during college and I finally learned some of the basic skills I was ‘too cool’ to learn in high school. I learned how to write and how to take notes and study. I wonder what my teen years would have been like if I had been more confident in these areas.” After college, Amanda worked part-time in a public school resource room in an urban district and had a son who also has dyslexia. She was trained in several structured phonics methods, including Orton-Gillingham and Wilson Reading. Amanda did not plan to become a teacher until she was in her undergraduate program.

Kate was a 38-year-old teacher who also attended most of her childhood in a specialized separate program for students with learning disabilities. She came from a family with a history of dyslexia and her challenges were identified early in her school career. She attended public school for Grades K-2 where she recalled:

I stuttered a lot and kids teased me. I was one of six kids at home, but my parents really spent a lot of time with me. They read to me; we worked on my letters. But I really had a hard time learning to read and I tried to memorize the

books. Other kids made fun of me and I remember being cognizant that other kids could do things that I couldn't.

Kate recalled learning to read in Grade 3 in her substantially separate program and wanted to become a teacher from that age. After her specialized program, she went on to attend regular classes with private tutoring. She took 5 years to graduate from college and sat for the state teacher exams several times. Kate taught in a public school learning center and supported students in the regular classroom. She felt strongly that her specialized school program helped her both academically and emotionally, and she went on for training in the Orton-Gillingham approach and other structured phonics programs.

Group 2. The next group of study participants was comprised of teachers who attended separate programs and now teach in similar programs.

Twenty-eight-year-old Missy's story was complex. She attended early grades in her local urban elementary school with one year where she attended a church-funded parochial school. Neither school met her needs and she recalled teachers did not seem "able to help me because I didn't fit the mold." Missy's parents did not have resources for private tutoring nor did they have ability to move to a more affluent district, so they sent Missy to live with an aunt in a wealthy suburban town before the start of eighth grade. There, Missy was placed in a specialized language-based classroom with 10 to 12 students and she recalled learning to read for the first time. She recounted that "it was thrilling to read a real book and work with teachers who could teach me." Through volunteer work, Missy decided she wanted a career working with children. As a teacher, Missy initially worked with students with severe special needs because she felt the physical aspects of this work matched her learning style. When she enrolled in a graduate program in moderate special needs, she learned more about dyslexia and systematic

reading instruction for those with reading disabilities. She then moved to an elementary program where her students spent most of the day in a substantially separate resource center, teaching in the same urban district she attended as a child.

Helen was a 36-year-old middle school teacher in a rural district who worked in a substantially separate program for students with language-based learning differences. She described the setting as necessary for some of her students with significant challenges. Helen attended a self-contained program at her suburban elementary school that she recalled as not specialized, but she appreciated the small class size and the attention she received. “I don’t think I had cutting-edge intervention, but I remember teachers working with me a lot, often one-to-one.” She attributed her accomplishment to these caring teachers and her own diligence to her ability to read, and she decided to become a teacher when she went to college. Helen reported that as an adult, she was reminded daily of her own dyslexia and worked hard to keep up with all the paperwork demands in her special education position.

Laura, the oldest participant in the study, did not have fond memories of her self-contained special education program. She remembered feeling that everyone who was “different” attended “the same class, no matter their needs.” As a teacher, she was involved in the development of her teaching placement where students attended a research-based dyslexia program within their regular public school. Located in an affluent town, her program was designed to replicate the private schools for which many parents seek funding through litigation. Laura felt that her program was under constant scrutiny, but she was insistent that it was the right place for many of her learners. “They deserve to have instruction that is designed for them instead of them having to adapt their

learning to the way it was [before].” As part of this program, her district provided Wilson Reading training for her.

Forty-nine-year-old Jack attended a substantially separate program for many years in his suburban elementary school. He did not recall it as specialized and he repeated a grade. As a result, he noted, “I didn’t graduate until I was 19.” Jack later planned to be a guidance counselor or social worker, but he was pleased with his career choice as a public high school teacher in a unique program for students with learning and emotional needs, where he reported his students “have such opportunities for success.” Jack reported that he was at times angry that his path to reading was so labored. He wanted this path “to be easier for others.”

Group 3. This group had the most members; these teachers attended and taught in inclusion programs.

Angelica was a 27-year-old elementary teacher in an urban district. She came from a military family and attended school in four states. Angelica reported that she felt her bicultural background and frequent moves were perhaps used as ways to excuse her poor performance. She felt this prevented her from obtaining a proper diagnosis of dyslexia until middle school. “I just pretended to read...and then it seems as soon as I would figure something out, we would move.” In Massachusetts, Angelica was educated in inclusion classes with learning center support and taught in the same setting when she became a teacher.

Twenty-four-year-old Lexi was a child with a pulmonary disease whose treatment caused her to miss a significant amount of school. Despite a family history of dyslexia

and challenges with reading, it was not until later in her school career that she was diagnosed with a reading disability. Lexi attended school in a regular classroom setting and later with learning center support. In her urban elementary school, she taught in a similar setting with Wilson Reading training provided by her school. Lexi decided to become a teacher when she was in high school.

Erica, 47, attended a suburban elementary school and recalled going to a learning center that her peers knew was special education. She did not recall learning she had dyslexia until high school and did not remember receiving any specialized support. Erica attended three different colleges and took several extra years to graduate and pass her teacher licensure exams, which caused her “extreme anxiety.” She had a family history of dyslexia and her own children also have dyslexia and ADHD. Erica taught in a learning center in a suburban elementary school after many years as a substitute teacher. She sought out and self-funded her training in the Orton-Gillingham approach. She hoped this training would make her a stronger teacher and provide her with strategies to help students who struggled as she did.

Max, 26, was dually diagnosed with dyslexia and ADHD, but he noted that his attention and behavior garnered more fixation from school personnel than his reading challenges. As a child, he attended Wilson Reading support, which he described as “boring” and “torture.” In middle and high school, he attended regular classes with some co-taught support and time accommodations for tests. Max described himself as a strong advocate for the unique students he taught in the regular classroom and within a learning

center model in his urban district. His mantra was “Show me one kid who doesn’t want to do well.” As a teacher, Max continued to struggle with organization and special education paperwork, but realized he had strategies he could employ.

Twenty-four-year-old Jamie was an elementary special education teacher also working in an urban district. As a child, she received support for her dyslexia in the regular classroom with weekly visits from a reading specialist. Later, Jamie taught in a similar arrangement where she accommodated students and worked with them in small groups. Jamie recalled wanting to become a teacher in high school. She described herself as a “hands-on learner” who found the student teaching aspect of her teacher training program to be the most beneficial and well-matched to her learning style.

Sofie, 30, was the only African American participant in the study. She attended school in regular classrooms in her suburban school and recalled faking stomach aches to avoid reading. Sofie felt that her teachers were ill-informed about her needs and was surprised that they initially did not suspect a reading disability. She later worked with a learning center teacher who made her feel empowered about her learning style. “[She] taught me to embrace my strengths and to work hard at my weaker areas. I spent a lot of time doing drills and I did them willingly because I wanted to improve.” Sofie taught in an elementary inclusion classroom in her urban district and was trained in Wilson Reading to support her students.

At 24, Julia was the youngest participant and only a second-year teacher at the time of the study. She attended public school in mainstream classes and recalled wanting to read chapter books like her peers. Tech-savvy, she relied on her phone, apps, and

alarms to keep herself organized in later years. She taught in an inclusion classroom in a suburban elementary school and at the time of the study was completing her Wilson Reading training. Julia was hesitant to talk to her students about all the celebrities with dyslexia as she felt it added pressure for them to be outstanding. “Not everyone with dyslexia is a famous movie star or scientist.... I just want my students to find a passion.”

Megan was a 39-year-old high school teacher whose twin brother also has dyslexia. She detailed how even with the same diagnosis, their symptoms were very different. She received some learning center support and co-teaching in her regular classroom setting, and she worked in a similar co-teaching model in her suburban high school teaching position. She took on Orton-Gillingham training for her own professional development. Megan hoped that professors and teacher candidates would realize “there is not just one checklist of symptoms” to determine who has dyslexia and the difficulties that manifest from dyslexia range from mild to severe.

Not surprisingly, this group comprised the largest cluster of participants since they attended and later taught in inclusion classrooms. This is the most prevalent type of public school placement as it aligns with the federal guidelines of “least restrictive environment.”

Group 4. The final participant group included teachers who attended inclusion classrooms but then worked in more restrictive programs.

Twenty-five-year-old Christina received support in her regular classroom as a child, recalling that her classroom teacher thought that she was “faking” her reading weaknesses. As a first-year teacher, Christina had the opportunity to work in a private school for students with language-based learning differences. She found this setting to be

“transformative” for students and her experiences there later helped her to obtain a position in a specialized “school within a school” program in a suburban public high school. Christina originally planned to become a scientist or science teacher and was happy to find a teaching position where she could mentor students who learned the way she did. Christina’s coded interview transcript can be found in Appendix J.

Twenty-eight-year-old Meredith did not recall specialized teaching methods in her schooling. She attended school in the regular classroom for the majority of the day where she said the teacher gave her the same lesson “over and over.” As a teacher, she worked in a specialized class within her suburban elementary school where she focused on skill instruction as well as emotional growth. Like the classrooms of Helen, Laura, and Jack, her program was sought-after by knowledgeable parents. Later, Meredith was trained in the Orton-Gillingham approach, which her district provided.

Willow, 28, was not identified with dyslexia until high school and, as such, spent her K-8 years in the regular class with no support. In high school, she attended some co-taught classes, but she felt she received the most help from her private tutor with whom she worked for many years. Willow struggled emotionally from her late diagnosis, recounting that “the worst was it made me reflect on how many of my teachers through the years must have just thought I was stupid. If they didn’t realize I have dyslexia, what were they really thinking about me?” She was a strong advocate of early identification and worked in a specialized public kindergarten program for children who have just transitioned from an early intervention program due to speech or motor concerns. Willow was enrolled in Orton-Gillingham training at the time of this study.

Thirty-three-year-old Hannah worked in a specialized middle school program for students with language-based challenges such as dyslexia, which was created from parent demand and district consultation with specialized private schools. Hannah felt strongly about this program in which she used a structured and multisensory reading approach as well as carefully designed strategies to address academic and emotional needs.

“Specialized training is vital,” she reported. “If students don’t learn to read, what will become of them?” As a child, Hannah attended mainstream classes, where she recalled she “hung on by her teeth” to finish high school. Hannah did not wish for other students to “have to rely on their sheer will” to get through school.

The teachers in this final group have seen the power of carefully designed programs that cater to the needs of students with significant deficits.

Member Check Participants

After the individual teacher interviews, the researcher further sought four additional special education teachers who met the study criteria. These teachers participated in a telephone survey, which ranged from 40 to 51 minutes, to review a summary of findings from the individual interviews.

These participants were sought in the same manner as the interview participants. The researcher sought study candidates through researcher email inquiry. She determined a diverse group of four teachers who varied in age, experience, and geographic location. Their profiles are delineated below in Table 3.

Table 3

*Member Check Study Participants***Attended a substantially separate program and now teaches in inclusion settings**

Pseudonym	Age	Demographics	Teaches	School Location
Fred	52	WM	Middle	Urban

Attended a substantially separate program and now teaches in the same

Pseudonym	Age	Demographics	Teaches	School Location
Deanna	43	WF	Elementary	Urban

Attended an inclusion setting and now teach in the same

Pseudonym	Age	Demographics	Teaches	School Location
Francesca	27	WF	Elementary	Rural
Bridget	24	WF	Elementary	Urban

Fred recalled attending school in a separate classroom most years. He studied to become an English teacher, which he described as “ironic” because he struggled with reading and writing for so long. Fred loved poetry and literature and relied on audio books as a way to make inroads into books. After 2 years as a high school English teacher, he entered a master’s program in special education and taught in a fifth and sixth grade program where students remain in the regular classroom for most of the day. Fred described his teaching placement as “challenging,” with large classes of children with “many needs.” He found it emotionally and physically draining to endeavor to meet the needs of students who struggled with learning on top of other challenges such as learning English and fighting homelessness.

Forty-three-year-old Deanna came from a low-literacy home and recalled discovering as an adult that her father was a poor reader. She described struggling in school and attending a specialized separate class with a reading specialist in fourth grade. She reported she felt this was a good match for her learning style and highlighted

increased self-esteem. Deanna taught in an urban elementary school and was a strong supporter for code-based instruction for all learners. She felt strongly about “professional reading intervention” and voiced that all children had the right to learn the phonics patterns that govern their language. Deanna was trained in Wilson Reading as part of her master’s program and in her self-contained classroom it was used as the primary intervention. She pointed out that she was hesitant to disclose her dyslexia to co-workers and tried not to focus on her own weaknesses.

As a child, Francesca recalled attending most of the day with her peers with some tutoring with a reading specialist. Later, she became an elementary teacher working in a co-taught third grade classroom in a rural district. She discussed her choice to become a teacher to “make kids feel better about school.” At 27, Francesca realized that she was relatively new to teaching but offered this insight into struggling learners: “I don’t know if I am a more skilled teacher than anyone else, but I know what kids are dealing with on the inside.” She planned to enroll in a specialized reading program to further enhance her teaching skills.

Only a second-year teacher, Bridget was full of optimism about the elementary students in her urban district, but she recognized that “many students struggle.” She was grateful to have received training in SPIRE (Specialized Program Inspiring Reading Excellence), which is derived from the Orton-Gillingham approach. “It gave me a place to start. We have so many students who lack basics.” Diagnosed with dyslexia in middle school, Bridget attended co-taught regular courses in high school and attended college with “some tutoring.” She joined a teacher corps and was assigned to her high-need school district.

These four teachers reflected on the findings of the 20 core study participants. In doing so, they added their experiences and opinions that stemmed from their experiences. A summary of the member check interviews is discussed in the Findings chapter and a coded transcript of “Deanna’s” interview is located in Appendix J.

Higher Education Dyslexia Experts

Finally, the researcher sought three higher education professors who work in the field of special education teacher preparation and who specialize in the fields of learning disabilities, dyslexia, and/or reading instruction. The researcher desired to represent diversity in the small sample, both in years of experiences in the field and in the institutions represented by the three participants. The dyslexia experts were sought through listserv announcements and snowball referrals. Selected experts were asked to participate in a 1-hour telephone interview discussing the state of the art in addressing dyslexia. Below is a demographic profile of the higher education dyslexia experts.

Table 4

Dyslexia Expert Profiles

Pseudonym	Degree	Position/Years of Experience	School Type
Grace	Ph.D.	Associate Professor, 7 years	Public University
Henry	Ph.D.	Associate Professor, 10 years	Public University
Marie	Ph.D.	Professor of Practice, 20 years	Private College

Grace was an associate professor working in a public university who specialized in learning disabilities and dyslexia. Grace taught face-to-face, online, and hybrid courses to undergraduate and graduate students. She expressed that teacher candidates with dyslexia have “particular empathy” and encouraged candidates to disclose their reading

disabilities in class if they wish as “it always leads to some interesting and often poignant reflections that help us to get to know one another.” She explained that many of her candidates have shared how difficult learning was for them or for a close family member and how those experiences may have spurred them to become teachers. Grace supported accommodations and structured phonics instruction for those with dyslexia.

Henry was an associate professor working in a different public university. He specialized in teacher preparation for working with students with emotional and learning disabilities. Henry endorsed teaching his candidates a variety of theories about reading acquisition. He reported that he wanted teacher candidates to feel confident to administer assessments, to determine appropriate instructional interventions, and to support learners in the general curriculum. Henry upheld the notion that most students can be supported in the regular classroom setting with skillful teaching and supports.

The final higher education expert, Marie, was a veteran professor of practice working in a private college. She taught graduate students and her specialties were learning disabilities and special education law. Marie discussed how many of her young teacher candidates did not learn systematic phonics as children so they must learn it in order to pass state exams and reach their students. She taught a *Structure of Language* course that introduced brain research to candidates. Marie delighted in candidates with learning challenges becoming teachers of those who learn differently.

The insights from these experts are reported in the Findings chapter and analyzed in relation to the words of the teacher interview subjects.

Plan and Method for Data Collection

Individual Teacher Interviews

Interviews are used extensively as a method for data collection in qualitative inquiries to discover what cannot be observed or to find out about past events (Merriam, 2009). Robson (2011) explained, “The human use of language is fascinating both as a behaviour in its own right and for the virtually unique window that it opens on what lies behind our actions” (p. 280). Brinkman and Kvale (2015) concurred by explaining “the qualitative research interview attempts to understand the world from the subjects’ point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations” (p. 3). They further explained that the benefits of using interviews as a qualitative source include the fact that they help us to understand the question “why.”

Research interviews can be categorized into three types: highly structured, semi-structured, and unstructured (Merriam, 2009; Robson, 2011). Semi-structured interviews are often guided by a prepared set of questions that allows some flexibility in the exact wording. This type of interview is most typical in qualitative studies (Merriam, 2009). In-depth semi-structured interviews provide particular advantages as a data collection method. Creswell (2014) listed three advantages: (a) they are useful when participants cannot be observed directly, (b) they are useful when participants can provide historical information, and (c) they allow the researcher control over the line of questioning (p. 191). As such, the researcher was able to respond in the moment to what emerged from the respondents. Semi-structured interviews were a valuable tool for gathering information in this research study. As previously discussed in the introduction to learning

from experience, learning is an interaction between the teacher—and the learner’s background experiences and social and emotional context—and his or her teaching. Learning about these background experiences was key to understanding the later decisions made by the teacher. The researcher developed the interview questions with the research questions and literature in mind.

When participants responded to the study participant search announcement, the researcher called each participant to gather demographic data and to schedule a face-to-face interview. The demographic survey (see Appendix D) served to discover information such as whether the participant identified as a person with a reading disability/dyslexia, the setting where he or she received special education services as a child or teenager, where and whom he or she currently taught, age, sex, years of teaching experience, and other questions about their current school’s geography and socioeconomic information about the student body. This allowed the researcher to gather a sufficient number of participants across groups and to diversify participants by gender, setting where they received special education services, setting where they currently taught, and geography of their schools. When a sufficiently stratified sample size was reached, the researcher began the interviews. She arranged a telephone conversation with each study respondent to review the study requirements, methods to ensure confidentiality, and required permission forms. The researcher explained at that time and at the start of each in-person interview the confidentiality terms, the use of the voice file, the verbatim transcription of the interview that would be shared with the participant, and the safe storage of the information. All interview transcripts, audio files, and summaries were stored in a secure

location with no access by third parties. The topic and purpose of the study were described again to check understanding of the focus.

The 20 interviews were scheduled by appointment outside of each teacher's workday and conducted at the researcher's office or a suitable private location of the interviewee's choosing, such as a study room at a public library. The interviews were conducted between June and October 2018, each lasting between 57 and 69 minutes. During the interviews, participants were asked to reflect on their personal and learning experiences as students in a special education setting and their journey to becoming a teacher, as well as to reflect further on the ways their teaching practices may have been influenced by these experiences.

Critical incidents were included as part of the interview protocol to elicit memories about positive and negative experiences as learners and teachers with dyslexia. It was anticipated that the scenarios would help to corroborate the responses from other interview questions by using anecdotes to provide details of a particular situation or event (Brookfield, 1987). While this form of data collection relied on respondents' recall and details that may have been forgotten over time, critical incidents have been well established as a reliable method for collecting, analyzing, and interpreting reports of actions taken by users in response to a certain experience (Kain, 2004). Other interview questions explored the participants' choices in their current practice and educational methodologies that may or may not have connection to their own experiences. The interview protocol can be found in Appendix A.

Every teacher spoke openly about his or her learning difficulties and childhood experiences, including those described as "scary" and "frustrating" as well as the

challenges and rewards they had experienced in working and learning as teachers in public schools. Several teachers commented on and expressed gratitude for the interview as an opportunity for reflection and further expressed appreciation for the interview that made them feel “validated.” All interviews were recorded and transcribed verbatim afterwards.

Upon completion of the interviews and transcription, the researcher provided each participant with a copy of his or her transcript to review for accuracy and to request deletion of anything he or she did not wish to be included in the study or to clarify anything he or she may have felt was not reflected clearly. No teacher requested changes to the interview transcript. Self-selected pseudonyms were used in this study to mask the identity of the individual participants and to protect confidentiality.

Member Check Interviews

After the 20 interviews were completed and transcribed, the researcher coded them and grouped common themes that emerged. In January 2019, the researcher selected four teachers to participate in a telephone survey instead of individual interviews. Each potential participant had also responded to a telephone survey (see Appendix D) that asked demographic questions and questions related to teaching placement and experience. The researcher then arranged a telephone conversation with each study respondent to review the study requirements, methods to ensure confidentiality, and required permission forms. The researcher explained the confidentiality terms, the use of the voice file, the verbatim transcription of the interview that would be shared with the participant, and the safe storage of the information. The interviewed individuals selected or were assigned a pseudonym. All the interview transcripts, audio files, and summaries

were stored in a secure location with no access by third parties. The topic and purpose of the study were described again to check understanding of the focus.

Each of the four participants was asked to describe his or her journey to teaching and to consider selected topics and reflections that surfaced in the individual interviews with the 20 teachers with dyslexia. They were asked to add in what ways these experiences were similar to or different from theirs. After each individual telephone survey interview of approximately 40 minutes, the recorded interviews were transcribed. The researcher sent the verbatim transcript and an executive summary for each interview to each study participant. The researcher asked the participant to review the transcript or at least the executive summary to make any corrections, adjustments, or additions, and to send it back to the researcher within a designated timeframe. The interview protocol can be found in Appendix B.

Higher Education Dyslexia Expert Interviews

In deciding to interview experts in the field of dyslexia research and practice, the researcher sought convergence and corroboration of results using different designs while studying the same phenomenon. In this way, she sought elaboration, enhancement, illustration, and/or clarification of the results from the individual interviews and the member check participants. Further, the researcher desired to expand the breadth and range of her research by exploring different data sources.

As such, the researcher sought three undergraduate and graduate school professors of special education who specialize in dyslexia and learning disabilities. They were sought through an electronic faculty posting at three local universities and a posting to the listserv of the Massachusetts branch of the International Dyslexia Association. The

experts were asked semi-structured questions related to best practice for the teaching of reading to students with dyslexia and particular skill sets that teachers with dyslexia may possess. The purposes of these interviews were to provide more insight into current teaching practices and philosophies and to map this information onto the responses from the interview and survey participants. The interviews were scheduled individually and recorded on an audio device, transcribed verbatim, and analyzed. The interview questions can be found in Appendix C; these were emailed to each participant before the telephone interview. After transcription, each transcript and an executive summary were sent to their corresponding higher education participant. The researcher asked each participant to review the transcript or at least the executive summary to make any corrections, adjustments, or additions, and to respond back to the researcher within a designated timeframe. The dyslexia experts requested no changes to their transcripts.

The researcher was aware of assumptions around the term *expert*. In this case, the word *expert* was used to refer to those study participants who have chosen scholarly pursuit in the field of dyslexia and at the time of the study were training current or future teachers to serve in this field.

Method of Analysis and Synthesis of Data

The primary source of data in this research was the words of the subjects themselves, their reflections on their special education experiences, and their methodological decisions as current teachers. As this teacher population has limited voice in current research, using their language to describe their learning process was of great value. The interviews were audio recorded. After transcribing each interview, the

researcher read through the transcripts to obtain a general sense of the responses to the overarching research questions. Notes and general thoughts were written in the margins of the transcripts. The researcher then coded the transcripts using both concept-driven codes and open codes.

Robson (2011) outlined the recurring features in possible approaches to analysis: giving “codes” to chunks and labeling them as examples of a particular phenomenon; adding comments/reflections or “memos”; identifying similar phrases, patterns, themes, and relationships; using these patterns to help focus further data collection; elaborating a small set of generalizations that cover the consistencies identified in the data; and linking these generalizations to a formalized body of knowledge “in the form of constructs or theories” (p. 469). For this research study, the interpretation of findings was framed by the theoretical lens of learning from experience.

Initially, the researcher used manual codes and highlighting for efficiency and organization in retrieving codes. For the first eight transcripts, the researcher conducted line-by-line analysis after an initial reading of the transcript to obtain a holistic impression. This allowed the researcher to delve into what respondents said and to build word codes. Following this initial coding phase where words were used, the researcher translated the words into alphanumeric codes and used these codes to analyze the subsequent transcripts. New codes were added as needed until the final code list was devised. The code list can be found at the conclusion of this chapter. General themes began to emerge; these became themes or categories that appeared as the preliminary findings.

In the next phase, the researcher conducted the aforementioned member check and dyslexia expert interviews and transcribed and coded them. The researcher developed a code list from the expert interviews and used some of the same codes as the teacher interview codes in order to map the responses.

In the final stage, the researcher analyzed data across the teacher interviews and across the subject groups. The data were categorized by research question. Next, the data were compared with data from the member checks and the dyslexia experts.

Data from all sources were then compared to themes gleaned from the literature review. The researcher added her voice based on her experiences and synthesized the information in light of history and educational trends. The researcher then outlined conclusions, actionable recommendations, and suggestions for further research.

A visual of the process is provided in Figure 2.

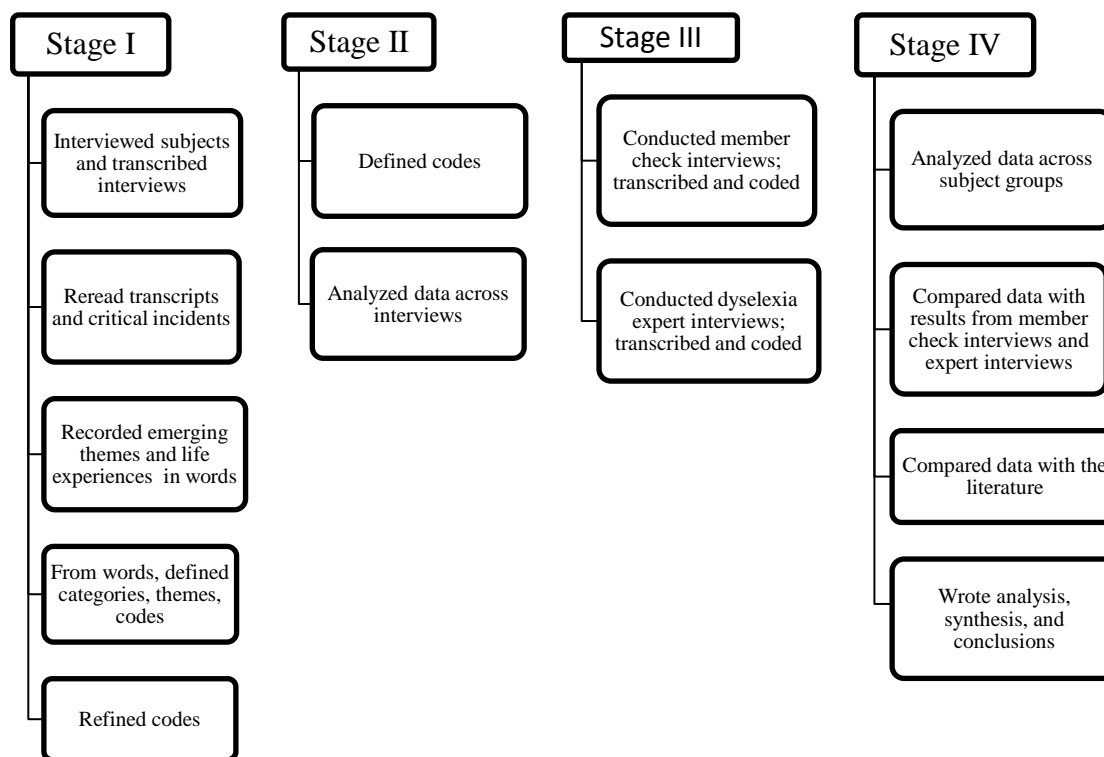


Figure 2. Visual of research design

A list representing the final coding scheme is presented next in Table 5.

Table 5

Final Coding Scheme

School Experiences (SE)	
Poor reader	SE1PR
Poor speller	SE2PS
Anxious	SE3AX
Slow	SE4SL
Inattentive, hyperactive	SE5IH
In remedial class	SE6RC
Felt stupid, embarrassed	SE7FS
Wanted more for self	SE8WM
Frustrated	SE9F
Wrong crowd, angry, behaviors	SE10WC
Teased, ostracized	SE11TO
Low self-esteem	SE12SE
Separate room	SE13SR
Faked reading	SE14FR
Speech issues	SE15SI
Avoided work	SE16AW
Traumatic experience	SE17TE
Grit, self-determination	SE18SD
Complexity (health, poverty, ELL, family)	SE19CX
Teacher who didn't "get" me (TN)	
Misunderstood me	TN1M
Retained in grade	TN2RG
Underestimated, low expectations	TN3LE
Caused low self-esteem	TN4SE
Not specialized	TN5NS
Pushed along	TN6PA
Compared me to others	TN7CO
Teachers who "got" me (TP)	
Caring	TP1C
Supportive	TP2S
Fostered strengths	TP3FS
Specialized teaching	TP4ST
Coping strategies	TP5CS

Table 5 (continued)

School Experiences (SE)	
Strategies that worked for me (TS)	
Accommodations	TS1A
Exemptions	TS2E
Hands-on learning	TS3HO
Systematic teaching	TS4ST
Small group instruction	TS5SG
Regular curriculum expectations/high standards	TS6HS
Journey to becoming a teacher (JT)	
Always wanted to be a teacher	JT1AT
Planned to be something else, then became teacher	JT2SO
Real-life internship/practicum was good match for	
learning style	JT3ST
Took longer than peers to graduate college	JT4LG
Took teacher exam more than once	JT5TE
Continue to use self-taught strategies	JT6SS
Peer support group	JT7SG
Seek administrative support	JT8AS
What I do as a teacher (CT)	
Hold high expectations	CT1HE
No excuses	CT2NE
Celebrate student strengths	CT3CS
Debunk myths about dyslexia	CT4DM
Share own experiences	CT5SE
Ensure peer group, appropriate placement	CT6PG
Systematic teaching	CT7ST
Hands-on learning	CT8HO
Multisensory teaching	CT9MT
Specialized phonics, spelling, comp programs	CT10SR
Appropriate accommodations	CT11AA
Small group teaching	CT12SG
Encourage students	CT13ES
My capacity to teach (SS)	
Have empathy	SS1HE
Understand profile	SS2UP
Encourage early identification/intervention	SS3EI
Protect self-esteem	SS4SE
Hold high expectations	SS5HX

Table 5 (continued)

School Experiences (SE)	
Know own limitations	SS6KL
Reflective teacher	SS7RT
Continued professional development	SS8CPD
Know current laws	SS9KL
Know about brain	SS10KB
Specialized reading training	SS11SR
Dyslexia training	SS12DT
Foster trust in students	SS13FT
Foster trust in parents	SS14FTP
Good match for me	SS14GM
Recommendations (R)	
Increase teacher knowledge, professional development	R1TK
Dual license	R2DL
Specialized reading training	R3RT
More dyslexia training in undergraduate program	R4UG

Ethical Considerations

A priority in conducting this study was to safeguard the participants from harm. The purpose of the study was described to the participants. The study adhered to plans approved by the University's Institutional Review Board (IRB) and, as such, each participant signed an informed consent form (Appendices E, F, or G) in advance of engaging in the interviews or telephone survey. The form outlined the participant's rights, including the option to withdraw from the study at any point. Further, the form emphasized that participation was voluntary and participants would be assured of confidentiality, as only pseudonyms would be used. The consent form identified the benefits and risks of participation. Only after receiving the participant's signed informed consent form did the researcher commence the study with him or her. To ensure

confidentiality, all written documents, coding legends, and audio files of interviews were stored on a password-protected computer.

Issues of Trustworthiness

Regardless of paradigmatic approach, the issue of quality is central to research in the social sciences as in other sciences. Traditionally, assessing the quality of a study amounts to evaluating its rigor using four criteria: internal validity, external validity, reliability or replicability, and objectivity (Lincoln & Guba, 1986). This set of criteria is conventionally applied to positivist and postpositivist studies typically conducted with quantitative methods.

Settings where many qualitative inquiries take place are not closed settings or laboratories in which conditions can be carefully controlled. Further, the researcher, the people studied, and their respective way of making sense of the world are ever-changing, perhaps catalyzed by experiencing, participating, and acting in the inquiry itself (Lincoln & Guba, 1986). Thus, to maintain a stance that the researcher remains constant and value-free and to judge a study accordingly underscores an inherent fallibility. As a result, alternatives to rigor have been devised to test the quality of a study while acknowledging the philosophies and values of the investigator as well as the respondents. One such set of criteria is identified to assess, instead of rigor, *trustworthiness*: credibility, dependability, transferability, and confirmability (Lincoln & Guba, 1986). The objective is to use multiple strategies such as triangulation, member checks, rich and thick descriptions, prolonged time spent with the participants, an external auditor, and so on, to validate the data and render the study transparent and “auditable” (Creswell, 2014; Lincoln & Guba, 1986).

The researcher kept a study journal with detailed, dated notes about each aspect of the study. She used deep and detailed descriptions of the participants' responses and transcribed actual quotes within the discussion of results and subsequent analysis. Use of member checks and expert interviews helped to triangulate the data from the primary interviews. The researcher asked each study participant from the teacher interviews, member checks, and expert interviews to review his or her interview transcripts for accuracy and/or clarification. Finally, the researcher asked a Ph.D. colleague to review one coded teacher interview transcript against a list of researcher-generated codes to check for degree of agreement in coding. Because the results indicated strong (95%) agreement across codes, the researcher did not pursue additional reviews.

Limitations

The qualitative data collection methods of individual interviews allow researchers to focus on meaning and participant perspectives. However, there are limitations to these methods as well. Foremost, interviews provide "indirect information filtered through the views of interviewees" (Creswell, 2014, p. 191). Additionally, the interviewer's presence may bias the interviewees' responses. The interviewer was familiar with some of the selected study participants. This familiarity could have been a minor factor in the interviewees' openness to divulge sensitive information or could have encouraged them to be more forthcoming.

A further consideration about interviewing included ensuring a good fit between interviewer and subject, with the interviewer acquiring an in-depth working knowledge of those being interviewed. During 18 years of working as a teacher trainer, the researcher

developed an understanding of the learning styles of numerous teachers and an appreciation for the diversity of the learning profiles in the field of special education.

Research texts further warn about participants being aware of what the researcher is trying to investigate, or anticipates finding, and what this implies for how participants are expected to behave. The researcher assumed that use of carefully crafted interview questions as an initiation for dialogue would help maximize neutrality in presentation. For example, in speaking with the subjects who were not previously known to her, the researcher did not directly divulge her position or specific dyslexia training, nor did she name any specific reading intervention in the research questions.

Another limitation is that not all people are equally articulate or perceptive (Creswell, 2014). It was assumed respondents would not recall or reflect on prior experiences to the same degree. As such, the researcher encouraged the participants to elaborate on what they did remember and reassured them that whatever they remembered was a valid contribution.

Finally, the study sample was limited to those who responded to the call for study participants. The study sample was skewed by the demographics of the sample, who were teachers only from Massachusetts. The researcher was aware of the challenges associated with trying to generalize findings from a small group of participants from only one state. Instead, the data from this study were considered as solely added context and perspective that can inform the field.

During analysis, caveats about interview data were considered. In addition to the previously mentioned possibility that participants may express their espoused theories instead of their theory-in-action, analysis also recognized that some respondents may

have changed attitudes, or even developed new ones, simply because they were being interviewed. Of final consideration, Kendall (2008) noted that during analysis, the interviewer should “take into account the ways in which meaning was created during the interview process” (p. 136). Further, Robson (2011) warned, “the central requirement in qualitative analysis is clear thinking on the part of the analyst” (p. 468).

Even with these methodological limitations and considerations in analysis, the inclusion of interview data was valuable for the goals of understanding this process through the experiences of these teachers. As Kendall (2008) stated:

Interview quotes are compelling. They represent real people expressing opinions about their day-to-day lives. In a good qualitative research report, we are given enough information to evaluate whether the analysis makes sense and to get a sense of the context of the interview quotes within the lives of the respondents. (p. 143)

Recognizing and valuing the context and experience of these learners were primary to the goals of this type of research.

Chapter IV

FINDINGS

Derived chiefly from data that emerged from in-depth semi-structured interviews with 20 teachers with dyslexia, four member check participants, and three professors who specialize in special education teacher preparation, the findings of this qualitative study are presented in this chapter. The discussion of findings includes direct quotations from the interview transcripts to represent the range of participant experiences and perspectives. The chapter is divided into three main sections, each devoted to findings derived from one of the research questions. Next, the researcher presents the findings from the member checks and subsequently summarizes the data from the interviews with higher education professionals. The chapter concludes with a summary of its entirety.

In this study, participants engaged in semi-structured individual interviews lasting from 57 to 69 minutes. Each interview was transcribed and coded (see Chapter III for more information on methodology). The codes in the Final Coding Scheme in Chapter III informed the organization of Tables 7, 8, and 9, which summarize the findings for each research question. The tables also serve as an outline for the organization of this chapter.

Findings from the teacher interviews were considered individually and then stratified across study subgroups. Group 1 was comprised of four teachers who attended a

substantially separate program and now taught in an inclusion program; Group 2 included four teachers who attended a substantially separate program and now taught in the same type of program; Group 3 was comprised of eight practitioners who attended an inclusion program during their elementary or secondary years and now worked in an inclusion program; Group 4 included four teachers who attended an inclusion program and now taught in a substantially separate model.

The following Table 6 presents coding across all study subjects and the subsequent section presents findings organized by research question. Discussion follows presentation of findings in Tables 7, 8, and 9.

Findings From Research Question 1

As study participants would be reflecting on up to 13 years of school experiences, it was challenging to imagine how to frame the study to focus in on specific events instead of generalities. The researcher chose to use critical incidents as part of the interview methodology. In this vein, Boud and Walker (1990, 1991, 1993) espoused that “learners can return to the experience by running through the whole experience in their mind, by writing an account of it or by describing it to others” (p. 34). As such, in describing their critical incident experiences to this researcher, all the participants returned to the experiences to retell them. This section presents the findings for the first research question, which focused on what teachers with dyslexia said they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher.

Table 6

Coding Across all Study Subjects

Code Indicator(s)	Code	Samantha	Betty	Amanda	Kate	Missy	Helen	Laura	Jack	Angelica	Lexi	Erica	Max	Jamie	Sofie	Julia	Megan	Christina	Meredith	Willow	Hannah
School Experiences (SE)																					
Poor reader	SE1PR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Poor speller	SE2PS	x	x	x	x	x	x		x		x	x	x	x	x	x		x	x	x	
Anxious	SE3AX	x	x	x	x		x			x	x	x								x	x
Slow	SE4SL	x	x	x	x	x	x		x	x		x		x	x		x			x	x
Inattentive, hyper	SE5IH					x			x			x	x	x		x	x		x		
In remedial class	SE6RC	x	x	x	x	x	x	x	x			x	x	x	x	x	x		x	x	x
Felt stupid, embarrassed	SE7FS	x	x	x	x	x	x	x	x	x		x		x	x	x	x		x		
Wanted more for self	SE8WM	x	x				x		x	x	x							x			
Frustrated	SE9F	x	x	x	x	x	x	x	x	x	x	x	x		x	x			x	x	x
Wrong crowd, angry, behaviors	SE10WC	x	x										x		x						
Teased, ostracized	SE11TO	x			x	x	x	x	x	x		x	x								
Low self-esteem	SE12SE	x	x	x	x			x	x	x		x		x	x	x				x	x
Separate room	SE13SR	x	x			x	x	x	x			x									
Faked reading	SE14FR	x	x		x				x	x		x				x				x	x
Speech issues	SE15SI	x			x							x									
Avoided work	SE16AW		x			x			x	x		x	x				x	x			
Traumatic experience	SE17TE	x	x	x	x	x	x	x	x	x		x		x		x	x	x			
Grit, self-determination	SE18SD	x				x															
Complexity (health, poverty, ELL, family)	SE19CX	x	x			x				x	x		x				x	x			

Table 6 (continued)

Code Indicator(s)	Code	Samantha	Betty	Amanda	Kate	Missy	Helen	Laura	Jack	Angelica	Lexi	Erica	Max	Jamie	Sofie	Julia	Megan	Christina	Meredith	Willow	Hannah
Teacher who didn't “get” me (TN)																					
Misunderstood me	TN1M	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x	
Retained in grade	TN2RG		x						x	x		x									
Underestimated, low expectations	TN3	x	x	x	x	x	x	x	x	x	x	x				x	x			x	x
Caused low self-esteem	TN4	x	x	x	x		x	x		x		x				x	x			x	x
Not specialized	TN5	x	x	x	x	x	x	x	x	x	x	x					x			x	x
Pushed along	TN6		x			x	x	x							x	x	x				
Compared me to others	TN7	x			x	x						x	x								
Teacher who “got” me (TP)																					
Caring	TP1C	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x	x	x
Supportive	TP2S	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x	x	x
Fostered strengths	TP3FS	x		x	x		x	x		x	x					x	x	x	x		
Specialized teaching	TP4ST	x		x	x	x	x	x	x		x	x	x		x	x	x		x	x	
Coping strategies	TP5CS	x		x	x	x	x	x		x	x	x		x	x			x		x	x
Strategies that worked for me (TS)																					
Accommodations	TS1AA	x	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x	x
Exemptions	TS2E	x	x	x		x	x	x	x	x	x	x	x		x		x		x		
Hands-on learning	TS3HO	x		x	x	x	x	x	x		x	x	x		x		x	x			
Systematic teaching	TS4ST	x		x	x	x	x	x		x		x		x		x				x	x
Small group instruction	TS5SG	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Regular curriculum expectations/high standards	TS6HS	x		x				x	x	x			x	x		x	x	x	x		

Table 6 (continued)

Code Indicator(s)	Code	Samantha	Betty	Amanda	Kate	Missy	Helen	Laura	Jack	Angelica	Lexi	Erica	Max	Jamie	Sofie	Julia	Megan	Christina	Meredith	Willow	Hannah
Journey to becoming a teacher (JT)																					
Always wanted to be a teacher	JT1AT				x		x	x		x		x				x	x			x	
Planned to be something else, then became a teacher	JT2SO	x	x			x			x				x					x			
Real-life internship/practicum was a good match for learning style	JT3ST		x	x		x						x		x			x	x			
Took longer than peers to graduate college	JT4LG		x	x	x		x			x		x									x
Took teacher exam more than once	JT5TE	x	x	x		x	x			x		x								x	X
Continue to use self-taught strategies	JT6SS	x		x		x	x	x		x			x	x	x	x				x	x
Peer support group	JT7SG	x		x	x		x	x													
Seek administrative support	JT8AS			x	x	x							x								
What I do as a teacher (CT)																					
Hold high expectations	CT1HE	x	x	x	x	x	x		x	x	x			x	x		x	x			x
No excuses	CT2NE	x		x		x							x				x		x	x	x
Celebrate student strengths	CT3CS	x	x	x	x				x				x					x	x	x	
Debunk myths about dyslexia	CT4DM	x	x	x	x	x	x		x			x	x		x			x		x	x
Share own experiences	CT5SE	x	x	x					x	x	x		x		x	x			x	x	x
Ensure peer group, appropriate placement	CT6PG	x	x	x	x	x	x				x	x			x			x	x	x	
Systematic teaching	CT7ST	x	x	x	x		x	x	x	x	x				x	x	x		x	x	x
Hands on learning	CT8HO	x	x	x	x	x		x	x	x	x	x	x	x		x		x		x	x
Multisensory teaching	CT9MT	x	x	x	x		x	x			x	x			x	x	x			x	X

Table 6 (continued)

Code Indicator(s)	Code	Samantha	Betty	Amanda	Kate	Missy	Helen	Laura	Jack	Angelica	Lexi	Erica	Max	Jamie	Sofie	Julia	Megan	Christina	Meredith	Willow	Hannah
Specialized phonics, spelling, comp program	CT10SR	x	x	x	x		x	x			x	x			x	x	x			x	x
Appropriate accommodations	CT11AA	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	
Small group teaching	CT12SG	x	x	x	x	x	x	x	x		x	x	x								x
Encourage students	CT13ES		x	x	x	x	x	x	x				x	x						x	x
Capacity to teach (SS)																					
Have empathy	SS1HE	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x		x	x	X
Understand profile	SS2UP	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	
Encourage early identification	SS3EI	x			x		x	x		x	x	x				x					
Protect self-esteem	SS4SE	x	x	x	x	x	x		x			x				x	x	x	x		
Hold high expectations	SS5HX	x	x	x	x	x		x	x	x	x			x	x		x	x	x		
Know own limitations	SS6KL	x	x			x			x			x	x	x	x					x	x
Reflective teacher	SS7RT	x	x	x		x			x	x	x	x					x	x		x	
Continued professional development	SS8CPD				x	x	x	x	x	x	x	x		x		x	x	x	x	x	
Know current laws	SS9KL			x			x	x		x							x			x	
Know about brain	SS10KB	x	x				x	x		x			x	x						x	
Specialized reading training	SS11SR	x	x	x	x		x	x				x	x		x	x	x			x	x
Dyslexia training	SS12DT	x	x	x			x	x	x		x	x	x		x				x	x	
Foster trust in students	SS13FT	x		x		x		x	x	x	x						x	x	x		
Foster trust in parents	SS13FTP	x							x		x										
Good match for me	SS14GM	x		x		x	x		x		x			x	x			x			

Table 6 (continued)

Code Indicator(s)	Code	Samantha	Betty	Amanda	Kate	Missy	Helen	Laura	Jack	Angelica	Lexi	Erica	Max	Jamie	Sofie	Julia	Megan	Christina	Meredith	Willow	Hannah
Recommendations (R)																					
Increase teacher knowledge, PD	R1TK	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	
Dual license	R2DL				x			x		x							x				
Specialized reading training	R3RT	x		x			x	x							x	x	x			x	
More dyslexia training in undergraduate program	R4UG	x		x			x	x							x	x	x			x	x

Table 7

Findings From Research Question 1

What did teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher?

<p>Finding 1: All participants reported vivid childhood memories of their struggles with dyslexia.</p>	<p>Poor reader (20/20) Poor speller (16/20) Slow (13/20) In remedial class (17/20) Felt stupid, embarrassed (15/20) Frustrated (17/20) Had traumatic experience (14/20) Had low self-esteem (13/20) Was teased, ostracized (10/20) Avoided work (10/20) Faked reading (9/20) In separate room (7/20) Ran with wrong crowd (4/20) Had grit, self-determination (2/20) Had speech difficulties (3/20)</p>
<p>Finding 2: Participants reported they felt they had at least one teacher who was not informed and knowledgeable about dyslexia.</p>	<p>2A. Lacked knowledge about profile and identification Misunderstood me (17/20) Underestimated me (15/20) Caused low self-esteem (12/20) Pushed me along (7/20) Compared me (5/20)</p> <p>2B. Lacked knowledge about needs of learner with dyslexia Retained in grade (4/20) No specialized teaching (14/20)</p>

Table 7 (continued)

<p>Finding 3: Participants reported at least one member of school personnel who did meet or empathize with their needs as a learner with dyslexia.</p>	<p>3A. Had knowledge about dyslexic profile and identification Used specialized teaching methods (15/20) Hands-on teaching (13/20) Systematic teaching (12/20) Small group teaching (19/20) Accommodations (18/20) Regular curriculum (11/20)</p> <p>3B. Had knowledge about the social emotional needs of learners with dyslexia Caring (18/20) Supportive (18/20) Fostered strengths (11/20) Taught coping strategies (14/20)</p>
<p>Finding 4: Participants reported they feel dyslexia is not a one-size-fits-all diagnosis.</p>	<p>Anxious (10/20) Inattentive, hyperactive (8/20) Other complexity: Parent with Dyslexia (2/20) Poverty (1/20) Frequent moves (2/20) Bilingual parent (1/20) Health condition (2/20)</p>
<p>Finding 5: A pivotal person or event sparked participants' interest in becoming a teacher</p>	<p>A pivotal teacher (5/20) Other pivotal adult (3/20) Important event or experience (3/20)</p>

Experiences With Dyslexia

One hundred percent of the study participants recalled specific school experiences as a child with dyslexia. They described primarily feelings of fear and dread as they and others around them realized reading was their weakness. For example, elementary teacher Laura returned to an experience and described when she noticed her lack of facility with letters was a problem.

When I went to first grade a long time ago, the first day I remember not being able to read the words. Letters made no sense to me, but I was strong with numbers. So I started counting the letters and memorizing the words by numbers, like OK, 3 letters is *dog*, 4 letters is *good*, 2 letters is *is*. I was fine for a hot second, and then my strategy didn't work out so well.

Elementary teacher Samantha described an experience where her third grade teacher compared her performance to that of a friend in front of the whole class. "I knew I couldn't read like everyone else," Samantha recalled. "I had to keep reading the same book in order to 'graduate up' to the next level. One time my teacher turned to me and in front of the class said, 'Why can't you just read like Julie?'" She sighed, "I still remember it to this day." Erica, another elementary special education teacher, told of a critical incident from her high school years. "I went back to my big public high school and I remember one day my math teacher asking me flat out if I was dyslexic. I just stared at her because I had no idea." She continued, "No one had ever explained my learning to me. Was this the reason everything in school was so hard for me?"

When reflecting on school experiences, participants reported they were poor readers (20/20), poor spellers (16/20), slow (13/20), in a remedial class (17/20), felt stupid or embarrassed (15/20), felt frustrated (17/20), felt they had a traumatic experience (14/20), reported low self-esteem (13/20), reported they were teased or felt ostracized

(10/20), avoided work (10/20), faked reading (9/20), attended class in a separate room (7/20), ran with the “wrong crowd” (4/20), showed grit and/or self-determination (2/20), or had speech difficulties (3/20).

Several participants described their feelings objectively as if describing a photograph, while most relived feelings and described them as vividly as if they had happened the day before. Betty, a 55-year-old reading teacher who attended most of her school career in a separate program, teared up during her reflections about how hard her high school experiences were as a student with not only dyslexia, but anxiety, stress, and a complicated home life. “[Senior] year was soul-crushing for me. I took the SATs three times. The first two [times] I earned the lowest scores possible and the third time, I just ran out in tears because I was so overwhelmed and distraught.” She continued, “And they chased me, but I said, ‘I can’t do this anymore.’ Eventually, I ended up applying to twenty-five schools, and guess what? I was rejected by twenty-five schools.” Thirty-eight-year-old Kate, who spent some of her childhood in a separate program, also recalled strong feelings associated with school as she reflected on her early experiences. “I remember crying a lot in kindergarten and first grade. I had a speech impediment and I would get frustrated that people didn’t always understand what I was trying to say, especially when I was upset.” She reflected, “I think my teachers thought I was a baby who probably needed to repeat the grade. I don’t think they saw me as a smart child with a learning difference. It wasn’t the norm back then.” Elementary teacher Julia, who was in an inclusion classroom as a child, poignantly remembered wanting to fit in and feel like a reader the way her peers did. “All the kids were asking for *Harry Potter* for Christmas. I wanted to read it and be like everyone else.” She lamented, “I remember

thinking, should I ask Santa for it and then just carry it around and pretend to read it? Or would staring at that big chapter book just make me feel miserable and left out?” She summarized, “Those are things my little eight-year-old self had to worry about.”

Study participant Willow attended school in the general classroom. She described a college interview as “still causing a visceral reaction” 11 years after the conversation. “When she looked at my record, the admissions counselor at [private college] just about yelled at me. ‘What makes you think you can come here?’ I was so mortified...my mouth just hung open.” She continued, “It reminded me of the day I was first identified [with dyslexia] at age sixteen. The psychologist had the same incredulous look on her face. ‘How did you get this far without reading?’ Like it was all my own doing.” After a moment, she added, “Both women made me feel like dirt. But the worst was it made me reflect on how many of my teachers through the years must have just thought I was stupid. If they didn’t realize I have dyslexia, what were they really thinking about me?”

Teacher Knowledge

The researcher asked participants to reflect back on school personnel who did not understand them and subsequently on school personnel who did “get” them. All study participants mentioned teacher knowledge as a key factor in academic success and emotional stability for students with dyslexia, and all participants returned to experiences to describe their interactions with teaching personnel. Participants recounted childhood experiences that reflected teacher ignorance or misinformation related to their challenges. Many shared that poor learning experiences were scarring and callous teacher words and actions were traumatizing. When asked about a particular teacher who did not understand them, study participants reported that they felt misunderstood by their teacher (17/20),

felt underestimated by their teacher (15/20), had feelings of low self-esteem caused by their teacher (12/20), felt pushed along (7/20), or noted that their teacher compared them to others (5/20).

Willow, who was not identified with dyslexia until high school, described a second grade teacher who consistently told her to “try harder.” She wondered how her teacher thought she would improve by sheer will and no intervention. “You can’t will yourself to read. It’s not a magical power.” She continued:

I remember asking myself, “Why doesn’t she know that I *was* trying?” [My teacher] kept telling me to do better and work harder. It was all like gibberish to me. And I struggled so hard to write my letters on those lines. Lots of “frownie faces” on my papers and lots of notes home, but not a lot of help until much, much later.

Seventeen participants, across all participant groups, endorsed that they felt misunderstood by teachers. They felt their teachers were confused about what dyslexia was, did not recognize it, or subscribed to myths about dyslexia. Sofie, a 30-year-old elementary teacher who attended elementary school in a regular classroom setting, recalled regularly faking a stomach ache to avoid reading aloud. In retrospect, she was surprised that her teacher did not suspect her real challenges. “I remember that I went to the nurse a lot. I kept saying that my stomach hurt. The teacher would let me go. She talked to my parents about it, wondering if I had a food allergy.” Sofie lamented, “Looking back, it is so frustrating that [my teacher] wouldn’t think ‘work avoidance’ related to my reading abilities. But the nurse didn’t suspect dyslexia either.” Christina, a high school teacher, remembered that her third grade teacher did not believe in dyslexia. She recalled, “When I was finally evaluated, I think [my teacher] thought my diagnosis was made up. When I got something right, she would say, ‘See, you can read fine.’ Little

did she know I was just guessing and relying on my wits.” She added, “And just because I was right some of the time didn’t mean I could really *read*.” Meredith, an elementary special education teacher, told how her first grade teacher “was kind and patient,” but she “kept teaching me the same lesson over and over.” She reflected, “Thinking back, I wish I could say, ‘Hey lady, try a different way.’ I had no way to explain that it wasn’t working.” She continues to see the same strategy used in her current school. “I see it in [the school where I teach now] too. For many teachers, the first instinct is to give the [struggling] student a ‘double dose’ of the same non-systematic nonsense. I wonder where that rationale comes from. I guess they don’t know anything else.”

In addition to comments about lack of understanding from teachers, participants further discussed teachers who lacked knowledge about the needs of learners with dyslexia. Participants outlined how they received no specialized teaching (14/20), had teachers who held low expectations for them (9/20), and were retained in a grade (3/20). “I had to repeat first grade,” recalled Betty. “We all know the research on retention points to nothing but problems, but that was the go-to strategy when I was young. I had to stay while all my little friends went on.” Jack, a high school teacher who, like Betty, attended a substantially separate program in elementary school, also repeated a grade. “You feel terrible because here you are in a special class, and on top of it you have to stay back in third grade. I didn’t graduate until I was nineteen.” They both lamented feeling “the teachers had put limits” on their potential. “It wasn’t the norm to have specialized classes back then; it is probably why I am a proponent of them [special programs] now. My students have such opportunities for success. I was written off.” Missy, who first attended her neighborhood school, recalled the challenges she experienced with teachers who did

not understand her needs: “I know now that my elementary school just wasn’t equipped to help me. They only had one way of teaching. If you didn’t get it, you kept practicing...things went too quickly for me, so I was never caught up.” She continued, “[My teachers] didn’t have any special ways to teach me. I think [my teachers] were frustrated with me, so yeah, I guess they didn’t get me.” Reflecting back, she summarized, “They probably thought I was annoying because I needed so much review and then I still would only get about half the questions right. I wonder if they thought ‘dyslexia’ or if they just thought I wasn’t teachable.” Even with caring and involved parents working with her, Missy reflected that as an adult she realized that she had required specialized teaching, to which she did not have access in her early school years. “My mom worked with me and she had the teacher send extras of every worksheet home and so I had to do them twice. I’m sure the practice helped, but it was the last thing I wanted to do—extra homework.” She added, “And it wasn’t specialized teaching.”

In contrast, when asked about a particular school figure who did understand them, participants described this person as caring (18/20), supportive (18/20), and one who fostered their strengths (11/20). Participants further recalled teachers who exhibited specialized teaching knowledge (15/20), used hands-on teaching strategies (13/20) or systematic teaching (12/20), fostered coping strategies (14/20), used appropriate accommodations (18/20), taught students in small groups (19/20), and upheld regular curriculum standards (11/20). In their journeys toward the teaching field, participants noted that a pivotal teacher (5/20) or another pivotal adult (3/20) spurred them to consider teaching as a career.

Elementary teacher Missy recalled how once she was identified with dyslexia and moved to another school at the end of seventh grade, she had “just-right” teachers in her specialized program who were supportive and skilled at “customizing my work and strategies.” She recalled how these teachers “helped me calm down a bit too because I could finally understand the work, so I wasn’t so anxious and worried.” She remembered how “enthralled” she was when she read her first book “for fun” when she was in eighth grade. Similarly, Kate, who attended a substantially separate class for several years, described her first specialized reading teacher as “amazing.” She explained, “She was patient and encouraging and she really saw the true me I think...she was very knowledgeable...she knew how to support me and explain things to me.” Kate concluded that this teacher’s “wisdom and patience” helped her to become a reader. “I remember reading my first little book from cover to cover and taking it home and sleeping with it. It was such a big deal that I could finally read a real book in third grade.” Sofie, Hannah, and Angelica, who all attended inclusion classrooms, made reference to teachers who made them feel part of the class, even though their skills were lower than the skills of their peers. “We were all in reading groups,” recalled Angelica, “but I don’t remember that she made me feel like I was in the buzzard group. She made us all feel like we were bluebirds.” She recalled that all students read aloud at their level from books that were “not babyish” and everyone also worked on acting out scenes from books. “I was good at that,” she recalled. “Once I was in the right classroom, I don’t remember feeling bad about my reading. I certainly felt bad in the early years, but it got better with the right teacher.”

Willow, who taught kindergarten students with learning challenges, beamed when she described her “hero and mentor” whom she met when she was diagnosed with dyslexia in high school. “I never had any real intervention until my final years of high school. My mother, my other hero, found an Orton-Gillingham specialist who worked with high school and college students. She tutored me all through college and my teacher training program.” Willow described her tutor as an “amazing soul who truly understands how I learn. Even though she is retired, I still see her weekly as I am working on my master’s degree. It feels so comforting to know I have someone who gets how I tick.”

Academic Placement

In the same vein as well-informed teachers, a well-chosen and appropriate learning placement was mentioned as vital by all of those in Group 1 and mentioned or described as important by 17 participants overall. Those who attended at least part of their K-12 years in a substantially separate program detailed their experiences as “frustrating” and “disheartening” because they were placed in a classroom with peers who had different learning needs than theirs. Those who spent most of their day outside of the regular classroom felt misplaced and underestimated, particularly those who received special education services in the 1970s and 1980s. As Betty recounted:

Middle school was the darkest period because they put me in a below-level class...and it was in the basement. Literally in the basement. I was put with kids that were not my peers...they were very different and tough. So I was in special education, but it wasn’t anything special. They modified the work. I used to use my free time talking to the teachers asking to be put in the average classes.

Similarly, Samantha described her middle school experiences as a time when she wanted to be more like students in the traditional classroom setting. “I was placed in a self-contained special education class with everyone who couldn’t make it in the general

education classroom.” She explained, “For sixth, seventh, and eighth, I was with students who were in their own room and kids in the cafeteria would call me ‘sped.’” As a result, she reflected, “I kind of acted out and I stopped working.... I was in that classroom for most subjects and mainstreamed for social studies. I had to advocate for myself to get out [of that class].” She summarized, “I really wanted to be mainstreamed all day.” Another study participant, Erica, explained her memories as a child in the regular classroom who attended a special reading class, and how she now advocates for students with dyslexia remaining as much as possible in the regular classroom.

In elementary [school] I went to the “rug room.” I don’t know what that actually was, but all the kids knew who went to the rug room. I guess it was the remedial center. I remember kids teasing those of us who were in remedial reading and I remember the classroom teacher not saying anything about that. I think [the teacher] should have deflected bullying and worked more on our self-esteem. There was certainly a culture of knowing who could read and who couldn’t—or at least that is my perception of it—and I think that was fostered if you know what I mean. Kids’ progress should not be shared with other kids. I really try to keep kids in their [inclusion] classroom and adjust my teaching to meet all learners.

Alternatively, Christina, a high school special education teacher who attended an inclusion program and then worked in a specialized language-based program, argued that separate learning programs can be beneficial and it all depends on the needs of the students. She worked with high school learners who required a significant amount of support as well as small group tutorials to hone their basic reading skills. These students spent the majority of their day in a separate class and Christina described the small program as “life-changing” when it was the right fit. “My students see this program as a safe space. We all know that we have weakness, but we have strengths too and everyone ‘speaks the same language,’ if you know what I mean.” She described in what ways the program benefitted her students. “The kids know that they need extra time and

specialized technology and someone to read over their work for spelling errors. And they don't need to explain themselves all the time because everyone [in the cohort] is in the same boat." Christina further described the students in this program as wanting to do well without all the pressures of taking notes in a large classroom. "[My students] can still do the [regular] work, but it is presented in a small setting with more support." Her students attended reading tutorials instead of a foreign language block. "I don't see my students being treated differently by their peers, but I can see how that may be a factor to consider. At our school, we work hard on students being kind to all." Helen, who attended a substantially separate program as a child and now teaches in a similar program, finds the level of support necessary for many children. "The students in my program fall on the more extreme end of the dyslexia spectrum. They have difficulties with academics but also with processing, memory, and executive functioning skills. The tailored program supports their many areas of need." She noted she hopes "someday they will be in a more inclusive placement" but knows they are in "an excellent place right now."

Complexity of the Profile

Another key finding involved the complexity of dyslexia. As no two students with dyslexia are exactly alike, recognizing, diagnosing, and remediating the symptoms of dyslexia can be challenging. Often called an invisible disability, dyslexia can easily be masked by bright students who have self-taught coping mechanisms. Conversely, those with dyslexia and co-morbid conditions such as Attention Deficit Hyperactivity Disorder may be identified and treated by school personnel for the latter condition over the former because its symptoms are more obvious. In addition to having dyslexia, study participants

revealed that they were anxious (10/20), inattentive or hyper (8/20), and had other complexities such as a parent with dyslexia (2/20), family poverty (1/20), frequent family moves (2/20), bilingual parents (1/20), or health conditions (2/20) that made their dyslexia difficult to recognize at first.

Study participant Max, an elementary teacher who works in an inclusion class, shared his reflections about his elementary school experiences where, as a student with dyslexia and ADHD, he was in the regular classroom for most of the day.

I wish that teachers knew that ADHD and dyslexia are not a choice. Some teachers seem to think that students are exhibiting behaviors to get attention, not because they can't help it. And amazingly, I still hear [teachers] saying "try harder" to students. That is ridiculous.... Show me one kid who doesn't want to do well. Why would they be copping out or giving up at nine years old if there wasn't a problem? People with dyslexia have added stress that nobody would really understand.... They worry about never catching up, about being seen as stupid, about not being enough, about remembering. Remembering is not easy.

Further, participants shared reflections regarding other types of complexities. Missy, who for years had no intervention, elaborated on how family poverty and lack of access to appropriate programming in her local school contributed to her not reading her first book until she was in middle school. She recalled, "Being poor didn't help my situation. My parents did not have money for tutoring or private testing, let alone to move to another district." She remembered, "[My school] wasn't the best place for me to learn how to read...they were not able to help me because I didn't fit the mold." Missy's family made a dire decision to send her to live with an aunt in order to attend school in a public district with an established learning disabilities program.

My aunt lived in [suburban town] and right before eighth grade, I went to live with her so I could go to a better school district. It was only six miles from home, but I had to live with her because the town checked on residency. So, I went home Friday night to Sunday, but during the week, I was with my aunt. Terrible, huh?... I must say, the schools were exceptional and while I wasn't in the track to take

advantage of all the great things, I had a lot of opportunities I would not have had in the school in my neighborhood. I mean the kids there [in the suburbs] were taking Russian and Japanese and philosophy and economics. But I was finally on an IEP. I was in co-taught [special education] classes that were maybe a standard level. There were two teachers and ten-twelve kids in each class.

In addition to economic complexity, conditions such as anxiety and depression can cloud the learning situation. Betty recounted how anxiety exacerbated her symptoms of dyslexia throughout her K-12 and college years.

Nobody “got” me. My parents were divorced and my house was a disaster. My mother was a mess. I was in therapy starting in third grade because on top of it all [learning difficulties], my family issues caused me a significant amount of anxiety. I was worried all the time. It felt like nobody tried to care about me or my learning, least of all my teachers.

Similarly, Willow explained that she still freezes when she has to read “on the spot.” She recalled how “anxious was her constant mindset” as a child. She explained, “I remember being confused and worried most of my school years. People called me worry wart and teased me for being a fretter over nothing.... In retrospect, I was worried about reading.”

In the media, successful actors, musicians, entrepreneurs, and leaders with dyslexia are celebrated for their determination and ability to overcome obstacles. During Dyslexia Awareness Month, success stories tout the virtues of working harder and not giving up (Shaywitz, 2005). For those who are not blessed with grit and self-determination, these stories can deflate one’s spirit and motivation. Betty further shared, “I just gave up because all my studying was not paying off. I started running with the wrong crowd. They made me feel better about myself.” She connected, “In class I was constantly confronted by my reading, writing, and processing weaknesses and my teachers had written me off. Eventually, I was seen as a problem kid instead of a kid with a problem.”

Likewise, Laura described times when her self-esteem was affected by not feeling smart. “It’s funny, everyone now talks about dyslexics being smart. In the moment, I did not feel smart at all. And I don’t think my teachers thought of me as smart.” She continued, “And my family probably didn’t think I was smart. I don’t know what they thought. I was the one who was never on the honor roll in a family of honor roll stars.” She summarized, “When there doesn’t seem to be an obvious reason for your underachievement, people make assumptions that you are just not bright. That can really mess you up emotionally.”

Study participant Angelica recounted how her mother’s weaker English proficiency and her family’s military status were viewed as contributing factors to her poor literacy skills. “I don’t think I got any real help until middle school. I was a military kid and we moved around a lot.” She added, “And I am biracial. My mom is Mexican American and she speaks Spanish a lot and I always wonder if people assumed I was an ELL [English Language Learner] student because I was so shy and quiet.” She explained, “We lived in [three other states] before moving [to Massachusetts] and I had a hard time in school, especially with reading. I think teachers made a lot of excuses for me—‘she just got here; let her settle in’ or ‘the curriculum is different here....’” Angelica lamented, “I just pretended to read...and then it seems as soon as I would figure something out, we would move.”

Lexi, an elementary special education teacher, was dually diagnosed with a health impairment and a learning disability as a child. In her interview, she explained how this situation complicated her progress in school. “I have a pulmonary disease and I spent a lot of my childhood sick—in the hospital, using nebulizers, getting pulmonary therapy,

and having to accommodate my PE [physical education] and other things. On top of that I have dyslexia.” She detailed, “My IEP said ‘health impairment,’ but I also have learning differences that run in my family. I had a hard time learning to read.” She continued, “I am fairly certain a lot of my teachers thought my reading and spelling issues stemmed from missing school so much and not from how my brain is wired.” Lexi wanted to ensure that her unique predicament was noted. “The situation [when you have a dual diagnosis] is hard. There is more emphasis on one complication over the other and sometimes teachers don’t understand the whole you. I think that is important for teachers to consider.” Further, study participant Megan explained that even with the same diagnosis of dyslexia, students’ challenges can vary significantly. “My brother, who also has dyslexia, can read well but is a terrible speller. I can now read and spell OK, but I struggle with remembering what I read and often have to go back and reread to get the gist.” She continued:

Some kids with dyslexia in my program have beautiful handwriting—in both print and cursive, while others have writing that is so laborious to produce and it’s barely legible. I have students who can recite poetry and some who barely remember their last name on a given day. When I hear things like, “he can’t be dyslexic, all his letters are in the right direction,” it blows my mind. Teachers really need to learn more about dyslexia and its spectrum of severity...there is not just one checklist of symptoms.

Summary

An analysis of study respondents’ reflections revealed poignant stories of school challenges due to their dyslexic profiles. These stories chronicled difficulties with academics and self-esteem as well as newly acquired self-awareness of their weaknesses. Study participants described teachers who did not understand them. These teachers did not seem to be knowledgeable about the dyslexic profile and espoused misinformation or

myths about dyslexia. Study participants reflected that much of the emotional pain associated with their learning weaknesses could have been alleviated if their teachers had been more knowledgeable about their learning differences and patterns of strengths and weaknesses. When reflecting on positive teachers in their school careers, participants recalled teachers who were caring and supportive as well as skilled at working with students with their particular learning profile. Several participants noted that this caring person was instrumental in their later choice to become a teacher of those who learn differently. Participants further described viewpoints about finding the right educational placement or setting for learning. Finally, they pointed out the complexity of the dyslexic profile, outlining how dyslexia can be difficult to identify when it occurs co-morbidly with other conditions or is exacerbated by family situations.

Findings From Research Question 2

The next section presents the findings derived from the second research question that focused on the ways that teachers with dyslexia felt their own experiences as learners and teachers with dyslexia influenced the ways that they currently practice. In the interviews, participants pointed to their capacity for empathy and understanding, their ability to uniquely pinpoint the strengths and weaknesses of struggling students, and their ability to recognize dyslexia when it may be masked by other challenges. Finally, participants described how their experiences led to their support for and implementation of scientifically based interventions for teaching reading.

Table 8

Findings From Research Question 2

In what ways have teachers' own experiences as learners and teachers with dyslexia influenced the ways that they currently practice?

Finding 1: Participants reported they possess particular empathy for students with a dyslexic profile.	Have empathy (18/20) Aware of vulnerabilities (18/20) Hold high expectations (14/20) Protect self-esteem (12/20) Celebrate strengths (11/20) Encouraging (11/20)
Finding 2: Participants reported they feel they possess unique skills in understanding and teaching students with a dyslexic profile	Understand profile (18/20) Debunk myths (15/20) Ensure peer group (13/20) Systematic and hands-on learning (15/20, 16/20) Accommodations (18/20) Small group (12/20)
Finding 3: Participants described their support for and implementation of scientifically based interventions for teaching reading.	Specialized reading (18/20) Multisensory reading (8/20)

Capacity for Empathy

All participants, across all groups, made reference to their ability to relate to students with dyslexia in a special way. They referenced having empathy (18/20), being aware of the vulnerabilities of the profile (18/20), taking special care to protect students' self-esteem (12/20), holding students to high expectations (14/20), celebrating their strengths (11/20), and encouraging them (11/20). They described "not comparing" their students to others and protecting them from "the trying experiences" they had endured.

Betty felt it was important as a teacher to explain the uniqueness of the learning profile. She explained that as a result of her own experiences and through her special education coursework and multisensory teacher training, she had developed a particular viewpoint in how to work with her students with dyslexia. She described her approach. “I have conversations with my students about why they are meeting with me [for remedial work]. I discuss what their teachers have noticed, what I have noticed.” She continued, “I ask them what they may have noticed about themselves, which is really interesting to get their responses.... And I talk a lot about *why*.” She concretely explains to students how their mind works. “Then I start talking about the brain. I have a model of the brain and we talk about the neural pathways. I make it very, very explicit that they have done absolutely nothing to cause their challenges....” She is adamant about students understanding that “this is their brain and their brain has a specific learning style and that’s okay.... I want them to know we will get there.” When she receives a testing report, Betty explained, “I go over it with them. I show them their incredible strengths and I show them their challenges. Then I show them the lesson that we do. I show them how their strengths make some parts of the lesson easier.”

Study participant Erica, who attended and now teaches students in an inclusion setting, discussed how she continues to work to protect students from feeling “less than.” She knows those feelings intimately and strives “to keep students from feeling shame” or feeling that they are less capable. She reflected, “Everything I do with my students is influenced by my own experiences. I could not read the Dick and Jane books and my teachers were so mean to me. I also remember SRA with all the colored levels to work

through.” She recalled that there was “so much independent work” and she would “just avoid work and take out my snack.” At first, she recalled, “The teacher thought I needed glasses. They put me in a reading comprehension program too, but nobody realized I couldn’t comprehend because I couldn’t decode.” Erica reflected, “I am much more empathetic with my students than my teachers ever were. But I am much more informed than they were—in many ways—both as a teacher and as a learner.”

Missy, who struggled for years before learning to read in middle school, came from a family whose motto was “It is what it is.” She reflected that her “no excuses” family taught her resilience and tenacity, qualities she tries to instill in her students. “I am a very positive person.... I come from a family of positive people who have faced some adversity but were always ‘chin up,’ so to speak.” She explained, “I try not to get discouraged by setbacks and I take that can-do attitude into my work.... [My students and I] work hard and we don’t give up.” Missy continued, “I teach my students to try plan B or plan C if they need to. I think that is important. No whiners in my class.”

Skill in Understanding the Profile

Participants further noted that as teachers with dyslexia, they have a particular skill in not only empathizing with but also understanding the dyslexic profile (18/20). They shared that they debunk myths about dyslexia (15/20), ensure that their students have an appropriate peer group (13/20), use systematic (15/20) and hands-on teaching strategies (16/20), and implement accommodations (18/20) and small group teaching (12/20). Twelve study participants made reference to understanding that “not all dyslexic students are the same,” and while there are markers for dyslexia, students can have mild

to severe challenges and a wide range of responses to intervention, coping strategies, and compensatory strengths. Study participant Max, who teaches in an inclusion program, narrated a time that he felt he was the only one who understood the challenges of a particular middle school boy with dyslexia:

It depends on the student. When anxiety is added as another layer, it is not always about reading and writing but also the associated challenges our students face. I had a student with a fear of public speaking because he had difficulty pronouncing polysyllabic words like ‘specific.’ He would try to get out of any task that required talking in front of a group. This kid could have been viewed as a behavior problem or just a shy kid, but I knew better.

High school teacher Jack described the ways that he supports his unique learners. He detailed how he helps them with writing down assignments, gives them supports for longer reading tasks, and makes sure to pair auditory information with visual information. He detailed, “If I am lecturing, I make certain that I use slides, graphics, or video to reinforce my words.”

Although class placement is often out of the hands of the individual teacher, 13 participants, across all groups, described how they ensure an appropriate placement for their students. Special education settings largely are determined by district philosophy and budget. “Even though my district embraces an inclusion stance,” noted Jamie, “I work with my students in small groups within the classroom and customize their work as much as possible.” She noted that she often utilizes parallel texts or books that address the same content as the class but are written at a lower level. Meredith, who reveres the self-contained dyslexia program where she teaches, noted that she works diligently to ensure that her students are included in all school activities, detailing that they attend elective classes, school assemblies, and fieldtrips like the rest of the school population.

“My students eat with peers and hang out with them too.” She explained that her students have “ready friends” in their program as well as friends across the school. Hannah, who taught in a separate program, explained that she unofficially matches up students of varying grade levels as “buddies” to help navigate middle school. “I will match one of my seasoned eighth graders with a sixth grader and ask him to look out for the new kid. In many situations this is social suicide, but my students are eager enough to not notice.” She added, “They are nice kids who want to help another kid who may be like them.”

Specialized Training

Like carefully selected placements, study participants referenced carefully selected instructional approaches. Eight study participants referenced the brain in their narratives and all 20 referenced specialized teacher training as imperative. Nine made direct reference to not learning about dyslexia in their own teacher training program and 12 mentioned they had not felt confident in their knowledge about how to teach a student to read when they graduated from their teacher licensure program. Additionally, of the eight participants who referenced completing some specialized multisensory reading training, each participant noted that he or she did not undergo such training during his or her undergraduate teacher preparation programs. “Specialized training is vital,” noted Hannah. “If students don’t learn to read, what will become of them? We know all the stories about dropouts and adjudicated youth. It is our role to ensure that we give these students the education they deserve.” Elementary teacher Laura wished she had learned to implement a systematic reading approach earlier in her career. “I was a student teacher during the time of Whole Language. I never learned much about phonics in my

preservice training.” She explained that the school where she worked later on in her career had all of the special education teachers trained in Wilson Reading. “I was almost ten years into my career at that point,” she recalled. “Some of the teachers thought it was so easy, but I remember thinking that the organization of the language was such an interesting and sophisticated tapestry. I wanted to know more.” Christina, who worked in a specialized program, added that her high school students have “memorized a significant number of words” but are not able to read unfamiliar words. “They have been able to get only so far, and now they need more tools. I give them phonetically regular nonsense words to read, which of course they hate because they can’t memorize them. But I am forever telling them that if they can read a made-up word, they can read any word.”

Missy, who started her career with students with severe special needs, became interested in learning disabilities when she took a multisensory reading course as part of her graduate work. “Later I went to graduate school and my program was in moderate special needs and I learned about dyslexia. I became interested in working with struggling readers like myself.” Initially, Missy recalled, she was “afraid to start that work because I knew it would expose my own weaknesses with reading and spelling,” but she “found it so fascinating...learning about reading was like learning all over again. I learned sounds, rules, syllable types that I probably learned in tutoring when I was in middle school but learning them as a teacher was a different experience.” She, and the 11 others who listed learning the structure of the language as imperative, lamented the context-based reading methodologies in place in many public schools today. Middle school special education teacher Hannah summed it up: “I want my students to have a

code to rely on. I want to teach them to break that code and use it rather than relying on pictures, predicting, guessing, or memorizing.” She explained, “Our kids will use the easiest way, and for many that is guessing.... It is frustrating to guess and to be wrong most of the time. We need to teach students ‘to fish.’”

Samantha, an elementary teacher, elaborated on her teaching methods. “I teach strategies. I want students to know how to break up a word.” She further ensures that her teaching starts off in a concrete way and she gives students ample examples to illustrate a concept. She added that her teaching is sequential, involves a significant amount of “continuous review,” and teaches students to use resources instead of “taxing their memory.” Betty, who favors teaching her young students about their brains, makes sure that her lessons are multisensory. She makes her students trace over letters, practice their letters “in a sand tray with their fingers,” and use their whole body at times in their learning. “I have them hop as they segment a word into sounds.”

Other participants referenced teaching grammar and spelling skills. “I think that schools do a solid job of teaching students to organize and compose longer works. I find that we do not do as good of a job with teaching the mechanics of the language,” noted Amanda. “I was talking to one of my students the other day about an adjective modifying a noun, and my student said, ‘What’s a noun?’ And one of my other students has a hard time telling if a sentence is complete.” She supported systematic grammar instruction “with a lot of hands-on examples.” She explained, “Many of my students have poor oral skills, and thus, poor written skills. We need to work on all of it.” Spelling was cited by 16 participants as one of their own challenges as students. Thirteen noted spelling as an

important part of literacy instruction. Kate explained, “My students groan at the rules, but I think deep down they are happy to learn our language mostly follows patterns.” She expanded, “I love to teach spelling this way—what do you notice about these words and how are they different from these words? My students are generally strong with noticing patterns.” Others noted that learning spelling is “tedious but required” and tiptoed the delicate balance between using technology to help with spelling and “memorizing and using the rules.”

In summary, an analysis of study respondents’ reflections revealed they felt particular empathy for students with dyslexia and cited unique ability to understand the subtle nuances which may come along with the dyslexic profile. Several further described how they support the need for specialized training to teach students to read. They cited how teaching should be research-based and rely on direct instruction over memorizing. The majority noted completed specialized multisensory and structured reading training and reflected on how their skill sets are a good match for students with dyslexia.

Findings From Research Question 3

This next section presents the findings the surfaced from the third research question focusing on the ways teachers with dyslexia perceived their learning disability affects their ability and capacity to teach students with dyslexia. Participants reported that their students appeared to trust their teachers with dyslexia because they understand them. Participants further reported they felt the markers of dyslexia continue across the lifespan and reflected on their journeys to becoming teachers.

Table 9

Findings From Research Question 3

In what ways did teachers with dyslexia perceive their learning disability affected their ability and capacity to teach students with dyslexia?

<p>Finding 1: Participants reported their students seem to trust that their teachers with dyslexia understand their unique profiles.</p>	<p>Share experiences (12/20) Foster trust in students (10/20) Foster trust in parents (3/20) Know current laws (6/20) Know about reading brain (8/20) Have dyslexia training (12/20) Have specialized reading training (13/20) Encourage early identification (8/20) Continued professional development (14/20) Good match for me (9/20)</p>
<p>Finding 2: Participants reported they feel the markers of dyslexia continue across the lifespan.</p>	<p>Took longer to graduate (7/20) Took teacher exams more than once (9/20) Real-life practicum/internship was good match for learning style (7/20) Recognize own limitations (10/20) Seek support from peers (5/20) Seek administrative support (4/20) Use self-taught strategies (12/20)</p>
<p>Finding 3: Participants cited capacity for reflection as a strength</p>	<p>Share experiences (12/20) Recognize own journey (11/20) Teaching is a good match for me (9/20)</p>

Student Trust

Seventeen participants noted their experiences help them to connect with students in a unique way, allowing them to serve as role models for those who struggle to read. They detailed having more patience than most teachers and stronger ability to break down tasks and concepts for their students. Six of the 17 specifically described how they understand “what it feels like” and how this makes them more prepared to work with

students with dyslexia. Study participant Christina explained, “I am a young teacher, only a few years older than my high school students, so I think I am in an even more unique situation.” She continued, “I am just like my students and I have lived their journey. My students mostly just see me as just their teacher who runs marathons and coaches soccer, but deep down I know they trust that I ‘know’ them.”

Hannah recalled a thank-you note from one of her middle school students saying, “Thank you for letting me finish my work at my own pace. In my old class I was always rushing.” She described the sentiment as “insightful” because she realized the student was cognizant that she processed more slowly and appreciated that Hannah gave her more wait time in discussion and more time to complete her assignments. Betty noted she “never makes corrections in red ink” because she remembered her papers being “covered in red” and the dejected feelings it fostered in her. “It is such a small thing, but I don’t want my students to have a demoralized feeling.”

Study participants, particularly those who attended substantially separate classrooms, cautioned about over-accommodating students or not accommodating enough. Hannah noted that while she accommodates for time, she is not quick to give her students “every accommodation under the sun.” The challenge, she noted, is in providing students with what they need, but not babying them. “There are lists of standard accommodations, but not every accommodation needs to be ticked off on the IEP.” Hannah and Samantha, as well as three others, discussed the use of accommodations over modifications. With accommodations, the student is expected to complete the given task with the same outcome. For example, the student may have to write a five-paragraph essay like everyone else, but may use a speech-to-text program in order to dictate the

words. When modifications are used, the expected outcome is different. In this case, the essay may be on the same topic, but the student may only have to write three paragraphs instead of five. “We are quick to modify,” Samantha warned. “Dyslexic kids can do the same level of work if we use technology, give them more time, or break the assignment into smaller chunks over several days.” Hannah also cautioned that not every student actually needs extra time. “A few of my students finish their work early. They may need a reminder to review their work, but several of my students are actually speedy workers.” In contrast, Betty noted that teachers must be aware of each student’s allowed accommodations and “follow them.” She noted that in some schools, teachers are not aware of what students are entitled to and rely on a student to self-advocate. “Most of my students are not able to describe what they need. So it is on the teacher to educate himself or herself about the student’s needs.” Her own high school-age daughter “records her class lectures” so that she can listen to them again later when she reviews her notes. Betty’s go-to is “multi-modal teaching for all students.” She detailed, “I think all students need movement breaks, multisensory opportunities, and sufficient chances to practice.”

Eight teachers across groups mentioned that because of their experiences, they perhaps are more cautious and tend to intervene early instead of “waiting for students to fail.” Angelica, who moved cross country several times as a child, noted that she brings student cases to her school’s child study team more often than other teachers. “The other teachers have a wait-and-see approach. I know how that can affect students. If I see a student struggling, I say let’s get in there and do something now.” Similarly, Kate described how she focuses in on the speech of young children. “Because of my own experiences with speech challenges, I am maybe hyper-focused on how kids articulate

sounds or put words in order.” She added, “I know the research and I know what happens when you don’t see language issues as related to reading. I am always listening to little kids’ interactions.”

Eleven study participants, seven of whom now teach in the regular classroom setting, described their ability to celebrate students’ strengths and talents and the importance of focusing on students’ abilities over their weaknesses. Max noted that he makes opportunities for students to shine, whether that be through painting, acting, drawing a diagram, solving a problem, or completing a puzzle. He further described his students as “out-of-the-box thinkers” who approach situations “with a different lens.” He explained:

Sometimes I am amazed at what my students [with dyslexia] come up with. During a rainy-day recess, they will take a box of Legos and build an entire fantasy world with structures and vehicles—with very little talking and no help from me. They don’t even need the diagrams that come in the box. It is like their brains think in three-D pictures.

Two teachers commented on noticing their students’ stronger interpersonal skills. “When we talk about our ability to have empathy for our students, what about our students’ ability to show empathy?” noted Hannah. “I teach a middle school student who has dyslexia. Among her talents, she is the best friend to everyone. She seems to have a sense when a classmate feels down. Kids are magnetized to her. It is a true gift.”

Samantha, who works with students in the regular classroom and in a learning center, noted her “eagle eye when it comes to seeing patterns of weaknesses.” She felt that her experiences give her that edge when it comes to her students. She described a student who “might be clumsy and have a hard time distinguishing left from right but has advanced math calculation skills.” Similarly, Jack described a high school student who

“couldn’t park between two white lines,” but could draw intricately detailed scale drawings from various visual perspectives. “Not everyone sees all that might come along with a dyslexic profile.”

Jack discussed how he felt he can be a comfort the families of his students:

I haven’t disclosed my dyslexia to many [of my students’] parents, but those who do know that I struggled seem to find comfort in the fact that I have earned an advanced degree and a district teaching award, that I coach a team and have a generally good life. I guess it is nice for them to see that their child can succeed too.

Elementary teacher Kate added, “At meetings, I speak with such conviction about my work with students. I think the parents know I am on their side.”

Dyslexia Across the Lifespan

In addition to their self-identified strengths at recognizing the instructional needs as well as the talents of the learner with dyslexia, participants recognized how dyslexia influenced their career path and how it continues to affect them directly in their day-to-day professional and personal lives.

Along their journey to becoming a teacher, seven participants mentioned that they took longer than their peers to graduate from college and nine made reference to taking one or more of the state teacher exams more than once. Erica explained, “I went to three colleges. First, I started out at [a branch of the state university] where I am amazed that I even got in. I failed my first semester, so I dropped out.” After a semester of licking her wounds, she enrolled in a community college program. Here, she said she learned more about her learning style. “I worked very closely with a tutor and the support center and had success for the first time. I really attribute my academic success to some very skillful and caring tutors.” While she lamented that it took her 6 years in total to graduate, she

felt “it was the right path for me.” She was able to transfer to a 4-year college and obtain her teaching degree. She reported that she still uses some of her learned strategies today. “I keep a little notebook to write things down because my auditory memory is not great.”

On their decision to become a special education teacher, Samantha, Missy, Betty, Jack, and Christina mentioned that they had planned on another career before deciding to teach students who learn differently. Missy, who attended a substantially separate program and teaches in the same type of program, originally planned to be a gym teacher.

I probably decided to be a teacher my senior year in high school. Before then I remember wanting to be a coach or an athlete.... I was an average student in a modified curriculum and with a lot of accommodations. I scored low-average on standardized tests. But I got into two college programs and I went to [state college].... It took me five years to finish and I had a lot of tutoring. I went with the idea of becoming a [physical education] teacher and I started out on that plan my first year. But I was volunteering in Special Olympics and I loved the students, so I switched into special education. I did well in the practical classes and I did very well in the hands-on parts like my student teaching. I did less well on tests and in courses like child psychology. Those had a lot of reading and memorizing.

Likewise, Betty originally wanted to become a psychologist but noted “there was too much reading and memorizing in my first psychology course.” Samantha, who planned to become an occupational therapist, also found the foundational courses in her chosen major to be “too challenging” and decided she “wasn’t strong in science.”

Christina planned to become a scientist, and she is happy to incorporate science and hands-on activities in her daily work as a teacher. Jack wanted to be a “social worker or guidance counselor,” but then became intrigued with helping students academically. “A lot of students’ emotional challenges stem from their academic weaknesses. I eventually decided to work on the root of why many kids feel terrible.” He reflected, “It was a lot for

me to realize I was going to work on reading everyday [as a teacher], something I did not excel at when I was a student.”

In analyzing interview transcripts, seven teachers referenced their student teaching or pre-practicum as valuable in their understanding of their learning styles. For example, Missy continued her story, explaining she realized in college that she was “best suited for severe special needs” because “the work with students is less academic and a lot more self-help and life skills.” She reflected she was “physically strong” and “organized with rote things like task analysis,” so she felt it would be a good fit for her. She recalled:

I always loved the kids in my student teaching and volunteer work and I knew I could be patient and help these students have some quality of life and have a community to learn in. Later I went to graduate school and my program was in moderate special needs and I learned about dyslexia. I became interested in working with struggling readers like myself.

Max, Christina, Erica, and Jack described the practical aspects of student teaching as the factor that made them stick with teaching as a career. As Jack noted, “When you get out of the textbook and into the classroom, you see it all come together and why it matters. No text can describe a student who hides books because he can’t read.” Willow and Jamie further made reference to real-life situations. “You have to write lesson plans for real live children,” Jamie recalled. “That makes it so much easier to learn when you do it ‘on the job.’ That is why it was my favorite part of my program. I loved the little students and I could design lessons just for them.” Willow noted, “Student teaching was easier than [taking] tests. I can ‘do’ it [teaching]. It is just not as easy to write everything down and just hope I was expressing myself clearly. I would rather have someone just watch me teach a lesson.”

As teachers, 10 of 20 participants noted the need to recognize their own limitations, to accommodate their need for extra time or external organization tools, or to be gentle with themselves regarding their own stamina and propensity for fatigue with longer literacy tasks. “My iPhone is my external brain,” boasted Julia. “I use it to record voice memos about things I need to do, to set alarms so I make it to meetings on time, and to take pictures of things instead of taking written notes.” Four of the teachers who made reference to their challenges in teaching commented about paperwork demands in the field of special education. Participant Helen noted she allows herself “three times as long as other teachers” to prepare student IEPs and evaluation reports. “The required paperwork is relentless and tiring,” noted third year teacher Christina:

I have a para[professional] who helps me review all the mind-numbing paperwork and record keeping, which I think is the bane of the special educator. I need her to run her eyes over everything for spelling and punctuation.... I haven’t wanted to quit teaching yet, but sometimes the files and reports get me close to that thought.

Four teachers noted seeking administrative support. “My principal knows I have relative weaknesses with writing and organization,” reported Helen. “I have told her I will volunteer on a committee or sponsor a club, but I prefer not to participate in groups where there is so much reading.” She reported the school improvement task force or the accreditation team “are always reading and writing reports.... I prefer to work on things that are more hands-on like the recycling club.” Likewise, five participants listed support from peers as a coping strategy, citing sharing resources, attending conferences together, and just commiserating as preferred outlets. Amanda shared, “There are not any other dyslexic teachers at my school that I know of, but there are two women who I met in grad

school who have similar challenges.” The three teachers meet regularly after school to share materials and tips. Amanda further commented:

We have a Google drive where we upload lessons and games that we make. If one of us creates a worksheet or phonics game, we certainly want to share it.... I get so many creative ideas from these two [teachers].... It is heartening to have teacher friends who “get” me.

Reflective Teachers

Participants cited examples that detailed their reflections on their unique position as teachers with dyslexia. They detailed how they recognized their journey (11/20), shared their experiences (12/20), and viewed teaching as a good match for their profile (9/20).

Twelve participants discussed how they decided to share their experiences with their students or colleagues, while the other half have not or did not mention it. Betty revealed that she has not told her colleagues or students that she learns differently. “I work at a school with a bilingual program and I am the only teacher who does not speak a second language.” She continued, “I know that I should disclose why learning another language is hard for me, but I don’t want to be vulnerable again. Feeling less than is a powerful feeling.”

Eleven participants made comments about reflecting on their own strengths and lessons learned as a person with dyslexia. “I have come a long way,” noted Missy. “I sometimes stop and think, ‘Wow, how did I get here?’ How did a girl who didn’t read until middle school earn a master’s degree?” She thinks of her journey when she is feeling down or depressed. “I know that I have a lot of ability. I think of [my journey] to help myself keep going.” Sofie, who attended school in a regular classroom setting,

agreed. “I know it is not uncommon for someone who had a childhood disease to grow up and become a doctor. But I often think it is formidable that someone who grew up struggling in school grows up to be a teacher.” She noted, “A little Black girl who couldn’t read ends up being a literacy specialist.... I don’t think my first grade teacher would believe it. I wonder at it myself sometimes.” Elementary teacher Erica concluded, “I have come a long way to be a teacher. It was not a direct path or a smooth one for that matter. But I know I am good for my students.”

Findings From Member Check Interviews

In order to address confirmability, the researcher interviewed four additional teachers with dyslexia to serve as member checks. The researcher sought the reflections of these additional participants in order to elaborate upon, enhance, illustrate, and/or clarify results from the individual interviews. As part of the interview questions, the teachers were each asked to review five themes that surfaced from individual interviews with 20 teachers with dyslexia. They were asked to think about the ways the reported experiences of these teachers aligned with their experiences. Specifically, they were asked to reflect on: (a) the variability and complexity in the dyslexic profile; (b) teacher knowledge about dyslexia; (c) teachers and teacher candidates with dyslexia having empathy and understanding for the dyslexic profile; (d) dyslexia continuing across the lifespan; and (e) the role of scientifically-based interventions for teaching reading.

All four of the member check participants referenced teacher knowledge as a key factor in student success. “With all that we know about dyslexia, it is a shame that it is not making its way into schools at the rate that it should,” noted Francesca, an elementary

special education teacher in a rural district. Fred, the oldest of the member check participants, noted that he has seen a shift in the treatment of dyslexia since he was a boy. “My teachers just drilled me with flashcards and made me copy words until my hand hurt. There was no such thing as different learning modalities, or even empathy for that matter.” Now he reported seeing “more specialized teaching, accommodations, and technology” to support learners with dyslexia. He noted, “We still have a long way to go, but it is so much better.”

When asked whether they felt that teachers with dyslexia had particular empathy for and understanding of students with dyslexia, all four teachers agreed without hesitation. “I agree...we can see things from their perspective. Learning can be scary and anxiety-provoking,” noted Francesca. “I think all teachers in the study would agree that we have a particular vantage point that non-dyslexic teachers don’t have.” She added, “I don’t know if I am a more skilled teacher than anyone else, but I know what kids are dealing with on the inside.” Bridget added that she recognizes when students are afraid to ask a question because they “don’t want to look like they don’t know.” That was a feeling she “dealt with as a child.” She counters the feeling by pretending she does not know something. “I say, ‘hmmm...I am wondering if these two letters make one sound. Let’s see.’ Then everyone wants to find out together.”

Regarding the variability and complexity of the dyslexic profile, both Fred and Bridget expressed strong reactions and added that the diversity of students in their schools can cloud identification. They concurred that dyslexia “can be hard to spot” when “another layer is added on top.” Fred discussed how English Language Learners with learning disabilities at his school are often not recognized for years. “I still don’t think we

have enough teacher training around distinguishing a struggling language learning student from a student with LD.” He added, “If dyslexia is so common and occurs across languages, why would we think that it doesn’t occur in children who come from other countries?” Bridget told of the challenges she encounters at her urban school. “At a Title 1 school like mine, identification is challenging. I think I am good at recognizing dyslexia, but I am often ‘pooh-poohed’ because our administration does not want to over-identify poor children or children of color as disabled.” Title 1 is the largest federal aid program for public schools in the United States; it provides federal funds to schools with high percentages of low-income students. The experiences of Bridget and Fred corroborate and enhance the findings about the variability and complexity of the dyslexic profile.

Bridget, Deanna, and Fred detailed their specialized teacher training in a multisensory reading program, which Bridget noted “was a life-saver” when she began teaching 2 years ago. “I did a Wilson practicum as part of my language and literacy program in grad school,” she detailed. “I learned a lot about English and it has helped me to help my students.... I have seen significant growth in their skills.” Fred commented that “the more you know about how to break down words into sounds, the easier it is for students to learn to read and spell.” Deanna lamented that the regular reading program in her district “gallops along at high speed” and her specialized training makes reading accessible for her students. “Everything I teach is systematic and practiced to mastery, one piece at a time. We don’t do a drive-by when it comes to phonics skills.”

When asked to comment about what they wished new special education teachers knew about the experiences of being a person with dyslexia, all four participants

mentioned the degree to which it plays a role in their day-to-day lives. “I think about my dyslexia every day,” reflected Francesca. “Not in a way that I let it define me, but I notice little things that sometimes crack me up.” She continued, “I guess once you are successful, you can distance yourself from the struggles. I laugh when I misspell a word. I still second-guess myself when I spell *referral*. Is it two r’s?” Francesca noted, “I use my phone for reminders and dates and I sometimes dictate notes to myself. I am not an organized person, but my phone is always handy to help me out.” Francesca and Fred lamented that college and graduate school were “challenging” for them but felt they were in the right field. “I know that I am a good teacher for my students,” reflected Francesca. Bridget commented that she “still has a lot to learn” as a young teacher, but she thinks she has a strong start. “My students know I struggled with reading and they ask me about it all the time. I tell them that it wasn’t easy, but it will get easier. I think they find some solace in that.”

The four member check interviews enhanced the presented data from the 20 initial interviews. Member check participants discussed the need for school personnel to be able to identify and help students with dyslexia. They further examined complexities, with Fred and Bridget adding federal Title 1 status and English Language Learners to the list of situations that may complicate a dyslexia diagnosis. In both situations, they discussed how their particular schools tend to err on the side of not investigating learning disabilities in these particular populations. All specifically recommended structured multisensory teaching for phonics and spelling instruction, and Bridget, Fred, and Deanna also attended training in such an approach. In their narratives, they explained how they use this teaching methodology with success. Becoming a teacher was not a smooth path

for Fred and Francesca, who cited how challenging their teacher training program was for them. All member check participants described ways in which their dyslexia continues to affect them, and all four readily agreed that teachers with dyslexia may possess particular empathy and skill in teaching students who have profiles like them.

Findings From Dyslexia Expert Interviews

The researcher interviewed three professors who specialize in the field of reading disabilities and prepare future special education teachers at the graduate and undergraduate levels. The purpose of these interviews was twofold. First, the researcher sought information about teachers and teachers-in-training with dyslexia from the point of view of those who work with them and prepare them for teaching careers. Second, the researcher sought current perspectives from these experts about the field of dyslexia and reading instruction practices. As part of the interview questions, the professors were asked to review five themes that surfaced from individual interviews with 20 teachers with dyslexia. They were asked to reflect on the ways the reported experiences of these teachers lined up with what they have seen in their teacher candidates. The professors were asked to reflect on: (a) the variability and complexity in the dyslexic profile, (b) teacher knowledge about dyslexia, (c) teachers and teacher candidates with dyslexia having empathy and understanding for the dyslexic profile, (d) dyslexia continuing across the lifespan, and (e) scientifically based interventions for teaching reading.

Supporting Teacher Candidates With Dyslexia

When asked in what ways they support candidates with dyslexia in their courses, all three higher education professionals cited ways they help candidates to master content

and learning standards. All recommended that candidates with dyslexia seek their approved accommodations and communicate openly with their professors. “Professors need to know specifically what each learner needs to be successful, whether that be time to review learned material with the instructor before or after class, extra time for tests, or copies of lecture notes,” noted Marie, a 20-year professor of practice at a private college. All three of the professors cautioned candidates from waiting until late in the semester if they need help. As much of the learning at the undergraduate and graduate level is self-directed, two of the professors advised candidates to “stay on top of weekly or semester-end assignments” so as not to fall behind. Each of the interviewed professors further recommended use of the campus support center for tutoring, writing assistance, or help with organizing and reviewing class notes. Each highlighted that the staff at the on-campus center has experience working with students with a wide range of learning differences who need help with managing their course load and studying for exams. “This is their professional job,” noted Grace, an associate professor with 7 years of teaching at a large public university. “They know how to help students.”

Similarly, two of the interviewed professors suggested that teacher candidates with dyslexia form study groups with classmates. Henry, a 10-year associate professor at a public university, explained, “I have found that many of my [candidates] with dyslexia learn best from small group discussions and peer interactions. I have seen some [candidates] with weaker writing and study skills come out on top because they know how to network with others to get the work done.” He further suggested communal electronic drives or dropboxes as a way to share notes, study guides, and discussion comments with peers.

Henry recommended that candidates use the course evaluation forms or other means of feedback to make suggestions for course delivery. “On evaluations, I think students should suggest other forms of assessment than tests or papers, and professors should be considering alternate ways for students to show their knowledge, such as portfolios.”

“Program fit” arose in two conversations with the higher education instructors. Henry noted that it is important for candidates with learning challenges to find the most appropriate fit for their learning style. “I see that more and more programs are offered in an online or hybrid format and I wonder if that is the best avenue for these [candidates]. The traditional face-to-face class may be a more appropriate learning environment for those who need multi-modalities for learning.” He cited in-the-moment conversations, immediate feedback to questions, and hands-on classroom opportunities as benefits of traditional college classroom settings. Alternatively, Grace, who also works at a public university, viewed the variety of learning options as beneficial to candidates who learn differently.

The field of learning opportunities is vast. [Candidates] just need to determine how they learn best. I would think that a classroom setting would be the best fit, but many of my [candidates] have done well with the flexibility of an online course because they can work when they have the time, such as late at night or on weekends. To them, the opportunity for personalizing their learning structure and timeline is key. It is not for everyone, but disciplined students with learning differences can make it work.

Grace expanded her comments to explain how the online environment may work well for those candidates with anxiety. “Sometimes they [candidates] may not be in the best frame of mind when a class is scheduled. With the flexibility of an online or a hybrid course,

they can work when they are at their best.” She reflected, however, “every setting has its pluses and minuses.”

In response to a question asking in what ways they specifically support those candidates with dyslexia in their courses, all three professors indicated that they made themselves available to all students to review materials or to ask questions. “I will make accommodations to anyone who asks,” indicated Henry. “As long as the accommodation is reasonable. I can’t have assignments submitted after the grades are due. But I tend to be lenient if a [candidate] needs extra time to read a lengthy assignment or asks for interim due dates to help him break down the assignment workload.” Marie added that she gives printed handouts for all lectures, while Henry and Grace make slides available for download on the Moodle platform that their universities utilize. Henry added, “I post the handouts a day early in case my [candidates] want to preview them before class.”

All three professors noted using a variety of classroom teaching strategies, including small group discussions, projects, viewing videos, and designing and critiquing lesson plans. “It can’t be all lecture and reading,” warned Grace. Additionally, the instructors emphasized keeping the coursework practical and ensuring that all of their candidates leave their programs ready to evaluate students, handle behaviors, and design appropriate interventions.

Special Skills

When asked in what ways teacher candidates who identify as having dyslexia might have special skills for working with students like themselves, Henry and Grace cited empathy as a particular strength and expressed interest in candidates sharing their learning experiences in class if they are willing. “I don’t like to put students on the spot,

but I know that they will add richness to our conversations over the semester if they want to disclose,” noted Henry. Grace added that in her first night of class, she asks all candidates to describe their own experiences in learning to read. “It always leads to some interesting and often poignant reflections that help us to get to know one another.” She explained that many candidates share how difficult learning was for them or for a close family member and how those experiences may have spurred them to become teachers. For those candidates without learning differences whose experiences with reading were an easy journey, she noted that “they truly benefit from hearing first-person stories about the struggles that some of their peers experienced on the path to literacy.” She noted that she has “never had a class without at least one [candidate] who had a reading disability.” Marie, the most veteran of the expert participants, discussed how “lived experiences” are a “wonderful way for teachers to connect with their students.” She explained how powerful it can be for a student to have a teacher who has lived through the same challenges and become a successful reader. Marie described a former graduate student teacher candidate who made an autobiographical video documentary about her journey with dyslexia and shared it with her students and their parents. “It was an excellent and thoughtful story that was full of hope.”

The Field of Dyslexia

When queried about the ever-changing field of dyslexia and best practices for teaching students with dyslexia to read, each professor had comments and recommendations about reading methodology as well as classroom strategies and philosophy. Henry noted that the dyslexia discussion is relevant since Massachusetts recently added legislation regarding dyslexia screening for young students.

It was exciting to follow the dyslexia bill as it made its way over two years. It made our class discussions even more real world. As we are preparing [candidates] to teach in public schools, they must be aware of legislation that will impact their teaching and their future students.

Grace and Marie cautioned that the media tend to portray all learners with dyslexia as geniuses and this may lead to misinformation about the profile. Marie explained, “I don’t want my [candidates] to think that only bright students can be dyslexic. We see this learning profile across students with wide and varying cognitive abilities. That is what can make it so challenging to identify.” Grace and Marie supported showing their teacher candidates a wide range of student profile exemplars to ensure that they recognize the diagnosis is not one-size-fits-all.

All three professors recommended more time in the teacher preparation coursework to address scientifically based reading interventions as well as more knowledge about the code of English. Grace explained, “Many of our [candidates] did not learn to read through phonology and morphology instruction when they were in elementary school, so it is challenging for them to teach [this content] to a student who requires specialized teaching.” She added, “It is even more challenging for a dyslexic [candidate] who may have learned to read by memorizing. In my *Structure of Language* course, many are learning the actual concepts for the first time in addition to learning how to teach the concepts to their students.” Grace further lamented, “In my courses, I teach a lot of *what* and a whole lot of *how*. I wish I had more time for *why*. I only touch on the *why*. Our [candidates] could use a whole semester on the brain and reading research.” She indicated that she wished all candidates could leave their training with a certificate in a structured reading program such as Orton-Gillingham or Wilson. “It

would give [candidates] stronger ability to help students if they know the general scope and sequence of English skills and how to analyze the patterns of errors that students make.” Marie also pointed to research-based reading instruction, while Henry supported teaching a variety of theories about reading acquisition.

I know all the current research is saying that structured literacy is what students need. And it is. I teach a structured reading strategies course. That is one piece. But I do want students to know how to support learners who read through context, for example. Most of my students go on to teach secondary students and they need to know that not all middle or high school students want to go back and learn the sounds.

Despite their slightly differing opinions about reading interventions, all three professors thought candidates should know how to administer assessments and interpret reading errors, how to determine appropriate instructional interventions and texts for students to read, how to incorporate opportunities for students to read aloud, and how to support learners with their general classroom curriculum. They recommended teaching note-taking and time-management strategies, ways to organize written assignments, and how to use technology as a tool. “Not only do students need to know how to read and write, but they need to know how to remember information and organize it,” noted Henry. He encouraged the use of speech-to-text devices and audio books, extended time, alternate forms of assessment, and strengths-based teaching. Further, he spoke to ensuring success for all students, not just those with learning disabilities.

I like to teach my [candidates] about UDL [Universal Design for Learning] to ensure that they are meeting the needs of all learners—those who are advanced, those who have learning challenges, and those who might be learning English, for example. In the districts where my [candidates] do their student teaching, most students with LD are in the regular classroom setting for the majority of the day.... It is an art for teachers to learn how to help everyone.

State of the Art

All three professors reflected on the state of the art regarding teaching students with dyslexia. “There is much variability from district to district in this state,” lamented Marie. “Unfortunately, it really depends on where you live.” She commented that she has seen “well-vetted” language-based programs that allow students to receive appropriate instruction right in their neighborhood school. She reflected that this tends to occur in more affluent towns, however, where parents are more knowledgeable and demand services, often after lengthy litigation. Marie recommended teacher and administrator training around dyslexia. “It all comes from the top. If you have a well-versed administrator, you have strong programs.” She foresees more equity in this area since new legislation in Massachusetts will mandate training and student screening in 2020. “At least everyone will have basic understanding of dyslexia and how to screen for it. In that way, students can receive appropriate instruction from the beginning.” When queried about appropriate instruction, she endorsed phonological training starting in kindergarten “for all children.” She hopes that with more knowledge, specialized classes will not be necessary in the future. “We should be able to address dyslexia in the regular classroom if teachers and administrators become skilled enough.”

Henry echoed many of the sentiments that surfaced from the teachers with dyslexia who were interviewed for this study.

“Complex.” I like that word. Students with dyslexia can be complex and finding them can often be complex. Many times [students] are yelling, “Look at me; I can’t read.” But other times, we have to search them out because they may be masking their challenges with silence or poor behaviors. We have to stop looking for every other reason why a student may not be reading. Dyslexia is so common...why is a reading disability not the first instinct?

Henry felt strongly about students remaining in the classroom with “cutting-edge” teaching, monitoring, and adaptation of lessons. “I see masterful teachers at work.... You can walk in their classes and not know who has a disability because [these teachers] have the ability to help all students shine.” He lamented that this quality of teaching is an art form that few can master. “With the high turnover [of teachers] in special education, many never become top-notch. But most are solid.” He added that ongoing professional development is paramount and hoped that district budgets will allow schools to continue to offer superb teacher development.

Grace spoke extensively about “not modifying” curriculum for students with dyslexia and instead “accommodating” students as they access the regular standards. “We need to stop expecting less and maybe we should expect even more. Fatigue and stamina play a part in dyslexia, but students can still complete assignments.” She likened it to a student with a physical impairment. “These students can still participate in gym class... and I think dyslexic students can still learn Spanish.” In addition to teachers and school decision makers learning more about the dyslexic profile, Grace asserted that all teachers should know more about the science of reading and spelling instruction. “With all that we know about the reading brain, it is shameful that this information is not trickling down to every classroom.” All three professors noted that instruction in higher education programs needs to evolve. “While we have a state-of-the-art dyslexia concentration available within our graduate programs, not many students opt for this specialized track.” Grace further noted that the most popular program in her department is the moderate disabilities license “and the [candidates] do not receive as much instruction about dyslexia or the reading brain” as they do in the dyslexia program. Henry noted that “it

depends on the professor and the program,” and he was chagrined that not all candidates appear equipped to work with students with dyslexia, even when they “pass the [required state reading foundations] exam.”

Summary

The three selected professors represented varying years of experience, institution type and instructional setting, and specialty within the field of special education teacher preparation. In interviews ranging from 45 to 61 minutes, the researcher asked each professor to detail the ways in which he or she supported candidates with dyslexia in his or her classes. Further, the researcher asked the professors for details about their experiences and opinions regarding reading methodologies and classroom accommodations for those with dyslexia. Finally, the researcher summarized five themes that arose from the individual teacher interviews and asked the professors to explain in what ways the teachers’ reflections lined up with their experiences in training teachers.

The special education professors, whether they taught in a traditional classroom or a hybrid format, indicated support for all candidates. They described providing accommodations as needed as well as using the specialized campus tutoring center. Two out of three of the dyslexia experts recognized candidates with dyslexia as having a unique trait of empathy and encouraged candidates to disclose their dyslexia to peers as a way to enhance classroom discussions.

All three reported teacher knowledge as vital and outlined learning particular approaches to teach students with dyslexia to read. They made reference to dyslexia screening, strengths-based teaching, reaching all students through state-of-the-art instruction, and ensuring that all students access the curriculum. Additionally, the three

professors made reference to candidates with dyslexia being bright and able to do the required work in teacher preparation and in schools as future teachers. They encouraged those with learning challenges to channel their experiences and empathy to working with those who have a similar learning profile. “What could be better?” noted Grace.

“Students will really benefit from their teacher’s journey.” Further, both she and Marie both made reference to candidates’ abilities to reflect on their own journeys and to foster trust in their students.

Chapter V

ANALYSIS AND SYNTHESIS

The purpose of this qualitative study was to explore with a group of teachers with dyslexia how their life experiences have shaped their practice. It was hoped that a better understanding of the perceptions of a sample of teachers with dyslexia would provide insight into best practices for supporting and teaching young people with dyslexia. The researcher conducted semi-structured interviews and collected supporting data by use of critical incidents. Participants in the study included 20 current Massachusetts elementary school, middle school, and high school teachers with dyslexia who work with students with dyslexia. Data from their interviews were coded, analyzed, and organized by research question and viewed in light of data from interviewed dyslexia experts and field literature. The study was guided by the following three research questions:

1. What did teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher?
2. In what ways did teachers' own experiences as learners and teachers with dyslexia influence the ways that they currently practice?
3. In what ways did teachers with dyslexia perceive their learning disability affected their ability and capacity to teach students with dyslexia?

These three research questions were largely satisfied by the findings presented in Chapter IV. The overarching findings in this study suggested that teachers with dyslexia felt that dyslexia is not one-size-fits-all and perceived teacher knowledge about dyslexia as paramount. They further reported that due to their shared experiences, they had unique abilities to empathize with students with dyslexia and understand the nuances of the dyslexic profile. Participants explained that dyslexia continues across the lifespan and pinpointed that specialized structured phonics training is necessary to teach students with dyslexia to read.

The purpose of this chapter is to discuss, interpret, and synthesize the findings by “attaching significance to what was found, making sense of the findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings, and otherwise imposing order” (Patton, 2002, p. 480). The researcher drew on her professional experiences and history to review individual findings closely. Data were then integrated back into a big picture by seeking out patterns and connections across findings.

Emergent information was compared to and contrasted with existing literature to determine whether and in what ways it confirmed, extended, or diverged from what is already known.

Experiences Across Groups

The researcher anticipated differences across the study participants based on their school placement experiences and teaching placements. The first group was comprised of four participants who attended substantially separate programs as children and taught in

inclusion settings. This group was unique in that two members embraced their self-contained classroom settings while two resisted them. Amanda and Kate attended publicly funded programs specifically designed for students with language-based learning disabilities for which their informed parents advocated. With strong family support and specially designed programming, both women reflected that they thrived in these classes. In later years, both were sent on to less restrictive settings where they encountered struggles in keeping up with regular class demands. In contrast, participants Samantha and Betty each attended a substantially separate class which they described as not specialized, where “everyone with a learning challenge was lumped together.” In this type of program, both women felt underestimated and frustrated; they pressured their teachers to allow them to participate in the mainstream. Betty did not remember hearing the word “dyslexia” until college and did not feel that her special education program had been designed for a child with dyslexia. Samantha remembered significant support from her mother, while Betty felt that challenges within her family exacerbated her learning challenges. Both women supported specialized programs for students who need them, but they both worked in districts with an inclusive philosophy.

The second group of participants attended substantially separate programs and later taught in the same type of program. This group represented diverse stories of hardship as all attended programs that they reported were not designed for students with dyslexia; participants described the programs as having modified curriculum and little to no specialized teaching. One participant, Missy, later attended a strong learning disabilities program in another district, which she credited for her academic success. All four participants were proponents of the specialized programs where they worked as

teachers, citing that the curriculum was crafted to meet the needs of the students. Both Helen and Laura taught in programs specifically created for students with dyslexia; Laura's program was developed in response to parent demand and litigation. She felt pressure for students to succeed since she was "regularly observed" by outside agencies, advocates, and parents; however, she felt "well trained" and "supported" by her district. Missy's teaching placement was not as specialized by design, but she felt she was learning ways to incorporate research-based methodology to which she was exposed in her graduate program. All four participants in this group reflected that public school districts still have a long way to go to provide programs similar to the ones where they taught.

The study participants in the third group attended and taught in inclusion settings. Most of the participants in this group were under 30 years of age and, as such, benefitted from federal laws that outline how states must have procedures in place assuring that

to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (U.S. Department of Education, 2017, n.p.)

As children, several participants in this group attended small group reading services in a learning center or worked with a reading specialist within the classroom, but all spent most of the day in the regular class setting. This caused them to become more aware of peers and grade level expectations. Lexi and Max detailed health impairments that may have masked their reading challenges, while Angelica felt that her frequent family moves hid her underlying reading disability. As teachers, all participants in this group worked in

programs where their students were in the regular classroom for the majority of the day, which remains standard practice for students with mild to moderate learning challenges.

The fourth group included members who attended school in the mainstream but later taught in substantially separate programs. Participant Christina first witnessed this type of separate program as a teacher at a specialized private school and later transitioned her knowledge and experience to a public school program. Willow felt her learning needs were overlooked until high school and, as a result, struggled from anxiety and depression. She dedicated herself to helping parents and schools recognize learning challenges as early as possible. Meredith and Hannah embraced their respective teaching programs where they felt they could focus on individual students and provide a customized program with sufficient “intensity and integrity.” Hannah stressed her desire to make the academic and emotional paths “more level” for students with a profile like hers and reflected that the separate program was the best way for her to do that.

Information gleaned from the words of teachers in these four groups informed the following analysis. The researcher next discusses themes of access and opportunity, emotional considerations, teacher knowledge, educational placement, resilience, and journeys to teaching.

Access and Opportunity

Glaring issues that came to light were access to and opportunity for appropriate education. All but four participants disclosed coming from middle-class to affluent homes and many had parents who were knowledgeable about dyslexia. Having literate parents, access to private tutoring, and families who could afford advocates changed the educational trajectories of participants like Christina, Kate, and Amanda. They were able

to attend strong programming due to the efforts of their families. Those who did not have this level of support or advocacy were identified later and subsequently struggled with emotional repercussions such as anxiety, depression, and lower self-esteem. Erica, who described her hometown as “blue collar,” was not identified as dyslexic until high school and reported that she did not understand her own learning until college. Like Erica, Willow’s challenges were identified late in her school career. Willow attended school with undiagnosed dyslexia until age 16. She recalled that school personnel did not identify her reading difficulties, despite the fact that she could not read a Dr. Seuss book accurately 2 years from graduation. She attributed this to her “overcrowded and under-resourced” urban public school, where she felt she “flew under the radar” because she “didn’t cause trouble.”

In Massachusetts, several public districts have developed specially designed programs for students with language-based learning disabilities and study participants represented these settings at the elementary, middle, and high school levels. All of these participants supported their program for students with more significant needs and felt they were compassionate and well-crafted educational placements. Several recognized that their programs were not yet the norm and had likely resulted from family pressure and litigation. All such programs were found in more affluent communities, particularly those geographically close to world-renowned private dyslexia schools. Dyslexia expert Marie noted that she hopes upcoming implementation of dyslexia screening laws will ensure more training and knowledge for all. She hoped, in fact, that the new focus on early intervention would negate the need for self-contained programs in the future. Decoding Dyslexia Massachusetts, a grassroots movement driven by parents, educators,

and professionals concerned with the limited access to research-based interventions for dyslexia, works to inform policymakers on best practices to identify, remediate, and support students with dyslexia in Massachusetts public schools and institutions of higher learning. With private dyslexia schools performing outreach to local public schools, the group hopes that knowledge and best practice will become the norm in all local schools.

The researcher reflected on her own experiences as an adult literacy teacher where access was a barrier. Most programs for low-literacy adults are designed for attainment of a high school equivalency certificate or for specific workplace training. Few programs are designed to address the needs of adults with dyslexia whose skill level may be below sixth grade. This scarcity causes many adults to enroll in a program that does not fit their unique needs and, thus, they drop out. Further, in her work as a consultant, the researcher continues to see inequity across public school districts, even between districts that share a geographic border. For example, one suburban town where she works has an informed special education director who has created language-based classrooms for Grades 2-12. These classes are small and a consulting speech and language pathologist works with each cohort. Students are continually monitored and an intensive and specialized summer program is available for those who warrant year-round services. Those students who do not require a self-contained placement may receive small group or 1:1 research-based tutoring during the school day up to five sessions per week. The special education director has invested in staff training over a 5-year period and has created a district-wide dyslexia handbook for parents and educators. In contrast, the neighboring town, which has a lower tax base, serves students with dyslexia in an inclusion or pull-out model. Pull-out services may or may not be scientifically based, depending on the training of the

assigned teacher. As such, quality of programming may be left to chance. These first-hand experiences with adult learners and public school districts inform the researcher's opinion that access to quality programs is vital. Going forward, the challenges for Massachusetts districts will continue to be access to appropriate teacher training, finding school leaders who support scientifically-based intervention, and securing funding to ensure implementation and follow-through.

Emotional Considerations

As a result of their challenges with attaining literacy, most participants noted that they struggled with feeling less capable than others. Several participants spoke of the anxiety and depression they experienced throughout their school careers. "Even if you weren't directly called *stupid*, you assigned yourself that label," noted middle school teacher Jack. "It is frustrating to be good at most things but then not at reading. It can take its toll on your well-being. I remember constantly trying and still not doing well." As mentioned previously, Willow and Erica both reported significant anxiety, which they continue to experience as adults. Erica reported that she continues to feel nervous about reading and writing.

When I go to meetings at my own kids' schools, I wonder if [the staff members] think I am LD. I am like a little kid wanting praise, but I am still fearful that I will be found out. If I want to disclose [my challenges] I will, but I would love to have the chance to fly under the radar if I want. I often feel like I have a bumper sticker on my forehead that says, "I read terribly and I am anxious." Shouldn't I be over this stress by now?

The participants who reported anxiety were not alone in their experiences. The International Dyslexia Association (IDA), in its 2013 article about the dyslexia-stress-anxiety connections, reported that while all people can experience overwhelming stress

and exhibit signs of anxiety, children, adolescents, and adults with dyslexia are particularly vulnerable (p. 2). This is because many individuals do not fully understand the nature of their learning disability and, as a result, tend to blame themselves for their own difficulties. Years of self-doubt and self-recrimination may erode one's self-esteem, making them less able to tolerate the challenges of school, work, or social interactions and be more stressed and anxious. Individuals with dyslexia may have experienced years of frustration and limited success, despite countless hours spent in special programs or working with specialists (IDA, 2013). Their progress may have been painfully slow and frustrating, rendering them emotionally fragile and vulnerable. Some have been subjected to excessive pressure to succeed or excel without the proper support or training. Others have been continuously compared to siblings, classmates, or co-workers, making them embarrassed, reserved, and defensive. Individuals with dyslexia may have learned that being in the company of others places them at risk for making public mistakes and the inevitable negative reactions that may ensue. It makes sense, then, that many people with dyslexia become withdrawn or depressed (IDA, 2013).

Within her own work with adult beginning readers, the researcher recalled times where fear and trepidation often were larger obstacles for learners than actual reading accuracy. Many adults in her volunteer program were even reluctant to enroll in classes, let alone to disclose weaknesses. This is not surprising as brain amygdalae perform primary roles in the formation and storage of memories associated with emotional events. Previous traumas associated with learning can keep adults in a fight-or-flight response when thinking about returning to reading. Similarly, feelings of inadequacy can haunt even those who have attained levels of success. In her work with teachers with dyslexia,

the researcher points to situations where teachers have skipped seminars, not submitted work, or cried in class due to self-doubt or feelings that their written work did not reflect their aptitude or understanding of material.

It is clear that limited access to specialized programming can affect life outcomes and emotional well-being. The researcher concurs with the study participants, member check participants, and dyslexia experts that access to strong instruction for learners with dyslexia should not be limited to the lucky few. Teacher knowledge is one way to alleviate disparity in access.

Teacher Knowledge About Dyslexia

Analysis of the interview transcripts revealed strong support for teacher knowledge about dyslexia. Since dyslexia is still a largely misunderstood phenomenon, it is not surprising that participants reported negative experiences stemming from teacher misinformation. All participants recalled struggling with reading, with some pretending to read to deflect negative comments from peers, others dodging oral reading by misbehaving or feigning illness, and a few avoiding reading all together. Participants mentioned wanting to read challenging books like peers and hoping to avoid comparison with classmates from their teachers. They devised strategies to compensate that largely encompassed memorizing words, counting letters, faking reading, or using text context to get by. Participants outlined that their outward signs of dyslexia as children, including halting or inaccurate reading, slow fluency, poor handwriting and spelling; for some, articulation difficulties were clear signs of dyslexia that were largely missed or misidentified. Participants reported feeling “misunderstood” since their academic abilities did not align with stronger cognitive abilities. Many expressed that their challenges were

misattributed to other factors such as family moves, having a bilingual parent, being “young” for the grade, or other assigned reasons such as health conditions, immaturity, or being a twin. Three participants were held back a grade, a practice which research does not support. Many states require that students lacking basic reading proficiency after third grade be retained and remediated. A recent study (Schwerdt, West, & Winters, 2017) found large positive effects on achievement that faded out entirely when retained students were compared to their same-age peers. Being retained in third grade due to missing the promotion standard increased students’ grade point averages and led them to take fewer remedial courses in high school, but it had no effect on their probability of graduating. Study participants who were retained reported repeating a grade and continuing without specialized instruction made no difference in their learning.

Participants outlined how they support recent passage of Massachusetts dyslexia screening laws (ch. 272, sec. 57A) and hoped that this legislation will prevent future students from enduring what they did. While it will not be enacted until 2020, the state law serves to issue guidelines to assist districts in developing screening procedures or protocols for students that demonstrate one or more potential indicators of a neurological learning disability, including dyslexia.

Of particular note is the fact that knowledge about dyslexia continues to improve as the science of brain and reading research slowly trickles down to practice. Knowledge of the brain areas responsible for fluent reading as well as information about instructional strategies to strengthen these reading pathways is becoming more commonplace. While many would attest that the field has a long way to go in bringing research to practice (Moats, 2009), the amount of information and access to it increases each year. For

example, research on the importance of developing phoneme awareness in young children was unheard of in 1995. In the time since then, curricula have slowly changed to include more of the science of reading. Asking students to isolate sounds and blend sounds into nonsense words are common assessment tasks even in kindergarten. The majority of participants did not benefit from this knowledge as they attended school when alternate approaches to reading acquisition were in practice. Participants over age 40, who also all attended remediation in a separate setting, recalled learning to read through memorizing high-frequency words or relying on pictures to support their reading. They did not recall learning through phonics, spelling, or grammar rules or conventions. Of the younger participants, several recalled learning to read through direct instruction in rules and patterns. Several were students in the Wilson Reading program, a structured and multisensory program derived from Orton-Gillingham. This is a popular systematic phonics program developed by Barbara Wilson in Massachusetts in 1988 and it is still implemented heavily in the special education field in Massachusetts and throughout the world (retrieved from <https://www.wilsonlanguage.com/programs/wilson-reading-system/>). Others in the younger age bracket do not recall such intervention and as such had difficulty passing the state teacher test that addresses how to teach foundational reading concepts.

The researcher's current professional work focuses on teacher training in Orton-Gillingham and other systematic and multisensory language programs designed for learners with dyslexia. Over the last 20 years, she has noted the increase in availability to this type of teacher training, which in her area was once offered only in a hospital reading clinic. She disagrees with previously outlined research (Moats, 2009), which points to

teachers' inability to grasp concepts about the structure of their own language. The researcher contends that teacher candidates can learn the phonemic, syllabic, and syntactic structure of English and learn to teach it systematically to all readers, not only to those who struggle. Barriers to such access to this training have included school budget restrictions, lack of administrative support, and ongoing philosophical debate about the necessity for such teaching.

In addition to strong teacher knowledge, participants voiced finding the right type of classroom that balanced educational need with the social and emotional aspects of school was imperative.

Educational Placement

With an ongoing movement toward more inclusive environments, these types of classroom situations are more and more common in public schools. Henry, one of the higher education professors who served as a dyslexia expert in this study, noted that he supports Universal Design for Learning (UDL), which by nature includes all students in each lesson. UDL's three instructional principles are: (a) multiple means of representation or giving learners various ways of acquiring information and knowledge; (b) multiple means of expression, or providing learners alternatives for demonstrating what they know; and (c) multiple means of engagement, or tapping into learners' interests, offering appropriate challenges, and increasing motivation (Center for Applied Special Technology [CAST], 2018). In the same vein, study participants recalled when teachers encouraged their strengths and talents such as when study participant Angelica remembered her teacher allowing her to act out scenes in a story.

Eighteen participants noted that accommodations in the general classroom supported their learning success and they continue to accommodate their own students similarly. Accommodations are strategies that do not change the expected lesson mastery but instead alter the path toward the expected outcome. Examples might include extra time to complete work, use of a spell-checker for written assignments, repeated or reworded directions, teacher notes instead of copying from the board, or listening to an audio book while reading a text. Study participants noted that carefully chosen accommodations are imperative, but cautioned not to over-accommodate students with dyslexia. Similarly, they advised that teachers not resort to a generic list but instead select only those accommodations the student truly requires to access the curriculum. Likewise, several participants noted that modifications, or changes that alter the learning outcome, should be used sparingly. Examples of modifications include the use of shortened assignments, lower levels of expected mastery, or exemption from aspects of assignments. Participants noted that when well-chosen accommodations are indicated and implemented, students can do well.

Complexity arose when voices from those with dyslexia expressed support for both specially designed separate programs and inclusion with accommodations. This complexity was more significant at the severe end of the dyslexia spectrum. How can schools balance the academic, social, and emotional needs of students who require intensive support? For eight study participants, their services included learning in a substantially separate program that may have been a program within their school, a class at another school within their town, or a specialized school in another town altogether. For those whose program was located within their school, most deemed it “not

specialized” and used words such as “lumped together” or “catch all” to describe a class where all who struggled were placed together. Several described these situations as traumatic and frustrating, causing them to shut down or choose friends who were not making good decisions, but the majority of those who were not educated in the mainstream voiced strong desire to be like others and described their experiences self-advocating for changes in their placements. A challenge for districts going forward will be finding the right combination of support and inclusion for each student while navigating obstacles such as budget and staffing.

Resilience

Resilience emerged as a theme when discussing self-concept as a learner. Participants reported wanting to experience the same learning as peers, to have teachers who held high standards, and to be in “regular” classroom or curriculum. Although most did not initially have a diagnosis of dyslexia, they did qualify for special education services. The majority of participants (17/20) were identified as needing special education services as elementary students under disability categories such as Health Impairment, Developmental Delay, or Specific Learning Disability. Participants reported a desire to experience the same learning as peers, to have teachers who held high standards, and to be in “regular” classroom or curriculum.

Themes of resilience, self-determination, and grit were reflected in participants’ recollections of persevering through poor instruction, applying to and finding the right college, working with tutors and taking longer than peers to graduate, studying for the state teacher exams, and keeping up with the paperwork demands in their teaching positions. Teachers described their inner strength to keep going and their desire to

achieve. Several set goals and worked until they achieved them, even if it took longer than expected. Most worked diligently and pointed to the extra time and effort they put into their work. Elementary teacher Kate took an extra semester to study for the state licensure exams and she and others sat for the exams more than once to meet standards. Professor Marie noted this type of resilience in her interview. “[Our] candidates work very hard and I am continually impressed by their efforts to do well and succeed.... Yes, we offer them significant supports, but I do see some very determined future teachers. They work hard and find their way.” In discussing their ongoing struggles with the effects of dyslexia, participants noted their coping strategies that included using technology, making lists, forming a colleague support group, and asking others for help in reviewing their written work.

In reflecting on these stories of hard work and tenacity, the researcher wondered if people with dyslexia may be more resilient than others. Do they work harder? Do they have special talents? The concept of people with dyslexia having particular tenacity, creativity, and interpersonal strengths is hotly debated. Books and articles describe those with dyslexia as having a gift (*Overcoming Dyslexia*), including particular strengths and mindset to succeed. They cite the successes of entrepreneurs and former and current CEOs with dyslexia such as the heads of Virgin Airlines, Kinkos, Cisco, Apple, and Ikea, and laud the talents of notable actors, chefs, sports personalities, and authors with dyslexia. Those who research connection between dyslexia and talent purport that the creativity and big-picture thinking that often accompany dyslexia align those with dyslexia with success. Others argue that uber-successful people with dyslexia had opportunities that not everyone is lucky enough to experience, such as supportive

families or someone in their life who took an interest or provided financial means or business connections. They contend that not all people with dyslexia are successful and holding students to this level of expectation is stressful.

At her workplace, the researcher hosted an evening presentation where teacher participants sat with the question, *Is dyslexia a gift?* Attendees, over 50% of whom self-identified as dyslexic, argued that the pattern of neural development in dyslexia may reflect a mechanism advantageous to the population as a whole, as it leads to diversity, and, thus, varying patterns of talent. They further argued that anyone with any type of challenge learns resilience and it is not unique to those with dyslexia. Others countered that environment often determines if a learning difference is perceived as a disability or a talent. Still others outlined that while high-profile stories of success offer lifelines of hope to students, illiteracy and academic failure are so harmful that teaching reading and protecting students' rights should be the priorities. The discussions were both poignant and heated. Participant reflections revealed feelings that the debate is complex and nothing is black and white. As one participant commented in her written reflection, "...does it have to be one or the other? Maybe the dyslexic profile offers one a buffet of strengths and weaknesses. Our challenge as educators is to fortify the weaknesses and to celebrate the talents." She continued, "...I hope schools will learn more about helping the weaknesses. That remains a mystery to many."

No matter how challenging their journeys or their thoughts about the dyslexic profile, all study participants made note of their particular hard work and stick-to-itiveness. The researcher feels it is particularly noteworthy that the participants in this study who struggled with reading chose a profession that is heavily immersed in language

literacy. Participant Missy summed it best: “I try not to get discouraged by setbacks and I take that can-do attitude into my work. That has been a gift to myself.”

Journeys to Teaching

Resilience and work ethic buoyed participants on their educational paths. In addition, participants described a desire to go into helping fields. Expressions such as “wanting to make the path easier for others” (Fred) punctuated the conversations. Several recounted desiring to become a teacher from an early age, while others had an experience in high school or college that prompted this realization. While five detailed considering other professions such as psychologist, social worker, occupational therapist, coach, athlete, or scientist, all noted that they hoped to be in a helping profession. Volunteer work with children spurred two participants into teaching. Participants noted that the coursework, writing, and tests associated with teacher licensure were challenges for them, and as noted previously, several took more than 4 years to complete their undergraduate degrees and teacher licensure requirements. Three noted hands-on practica and student teaching experiences as the most positive components of their preservice training.

In their reflections, teacher narratives were rife with stories of scary and frustrating learning situations; however, when queried, all participants noted that they did find someone who understood their learning and emotional needs. This person may have been a teacher, counselor, or tutor. Participants described this person as caring and supportive, a person who fostered their strengths, or one who taught them coping strategies. One participant described a guidance counselor who taught mindfulness and journaling to help students manage stress and emotions. Several described teachers who used specially designed and code-based reading interventions that led to their reading

books for the first time. They described teachers who encouraged hands-on learning and experiences. Others described teachers who supported them in the arts, science, or sports as a way to excel. Two participants mentioned their own childhood interests in the sciences and how their teachers encouraged this. Participants recalled how supportive teachers made them feel good about their unique talents in activities such as building models or robotics, completing puzzles, or designing costumes for the school play.

On their paths to college and beyond, participants recalled stories of both hardship and success. Many described college as stressful and challenging, despite taking advantage of accommodations. Several voiced that they “worked harder than others” and seven indicated that they took more than 4 years to graduate from their undergraduate program. They described failing text-heavy courses, attending tutoring in the college resource office, asking for accommodations from professors, and staying up late to complete assignments. These experiences reflect similar themes as found in the previously reviewed literature. The researcher reviewed studies whose themes included the decision to disclose to peers and professors, instructor knowledge, and emotional and attentional co-morbid challenges. An important finding from O’Shea and Meyer’s (2016) study of college students with “invisible” disabilities was that the students’ motivation and decision to utilize support services and accommodations depended on their level of acceptance of their disability. Kate, the study participant who took off an entire semester to study for the Massachusetts Tests of Educator Licensure (the set of exams required to obtain teaching certification), exemplified self-determination, which the literature highlighted as an important factor in higher education success for students with dyslexia (Glazzard & Dale, 2013). Betty, however, exemplified a different type of self-

determination. After a specialized transition year to college, she decided to enter her sophomore year at a different university without disclosing her disability and thus going “cold turkey” with no supports. She failed her first semester and then returned, this second time with accommodations and carefully selected courses.

Of the 20 participants and four member check participants, eight expressed from an early age interest in becoming a teacher, with five referencing a particular teacher who inspired them to enter the teaching field. Other participants fell into teaching by chance and remained in the field. In selecting teaching as a profession, they cited wanting to help others who learned like them and additionally indicated a desire to help students feel good about reading and learning. Several discussed wanting to study more about the brain, learning disabilities, and/or how all students learn.

During their teacher preparation programs, participants noted that the practical aspect of their pre-practicum or student teaching was the best part of their training. They pointed to real-world application and experience as a good fit for their learning style. One noted that preparing lessons for a real student helped everything make sense to her. As a result of this insight in reflecting on their own teaching, participants made reference to choosing hands-on experiences and practical ways for their students to apply learning, such as writing letters or newspaper articles, going on fieldtrips, or participating in volunteer activities.

Experience Influences Practice

As participants reflected on their journeys, they noted that both positive and negative experiences have shaped their practice. They chronicled poor teaching that made them want to improve the field, and they described inspirational teachers who ferried

them along the path to teaching. Participants felt their unique experiences gave them a particular lens for understanding the dyslexic profile. They noted that they have heightened empathy for those who struggle and are aware of the vulnerabilities of the profile that other teachers may miss. Participants cited examples of student behaviors such as getting lost in the school, confusing left and right, and forgetting locker combinations as often overlooked signs of dyslexia to which they are more attuned.

Participants reported that their teaching practices reflected their experiences with dyslexia and knowledge of the profile. First, participants discussed their particular gift of empathy. They reported that they work to protect students' self-esteem, ensure students have a peer group, encourage them and celebrate their strengths and talents, and hold high expectations for them. Participants outlined how they avoid marking up students' papers and give students multiple ways to show their knowledge, whether that be through diagrams, oral tests, or projects. Study participants cited examples of encouraging students in their sports, arts, or drama talents and made reference to incorporating these talents into classroom work or assignments. Teachers' self-reported abilities to empathize with and uniquely support students aligned with findings from the literature. The literature reviewed for this study pointed to teachers who consider having dyslexia to be an advantage. In one study, participants felt their profile offered them additional sensitivity to recognize, empathize, and help students who have difficulties with their studies (Ferri et al., 2001).

Additionally, teacher participants noted they endeavor to debunk myths that often accompany dyslexia, such as it is a condition that one outgrows or special glasses will help students to read. Many, particularly middle and high school teachers, felt they serve

as advocates for their students, explaining their profiles to other subject teachers who have no training on dyslexia. Study participant Christina noted she felt several teachers in her school saw dyslexia as a challenge only for younger students and high schoolers should have been remediated. Christina noted that some of her colleagues did not understand dyslexia as a lifelong profile and did not see dyslexia as affecting other subjects outside of the language arts. She and others remarked how they continue to educate others, including administrators, colleagues, and parents, about the strengths and challenges that accompany the dyslexic profile.

In their instruction, participants indicated that they use systematic and hands-on teaching with ample opportunities for review, use small group learning, and employ necessary accommodations for all students to access the curriculum. Participants felt strongly about specialized reading instruction, noting that students with dyslexia learn differently and, as such, they do not learn through traditional reading methodologies that rely heavily on background knowledge, prediction, or use of context. All 20 participants endorsed “specialized reading,” while eight specifically mentioned multisensory structured reading as necessary. Thirteen of the 20 noted that they were trained in a multisensory reading methodology, the majority of them with a practicum component. Additionally, all four member check participants supported specialized reading training and three had completed training in a multisensory approach, including participation in a year-long supervised practicum. All three professors in the expert group also cited scientifically based reading intervention as key. They further outlined their desire to graduate candidates who are able to assess students and interpret their patterns of reading errors as well as determine appropriate interventions for them. Participants who described

their specialized reading training used words such as “systematic,” “teaching one concept at a time to mastery,” and “structured phonics” to describe the type of teaching they use for decoding and spelling. Missy, who did not learn to read until middle school, noted her fear in teaching phonics because she had to learn each concept again in order to teach it to her students; she noted that “learning [phonics concepts] as a teacher was a different experience.” College professor Grace, who prepares teachers to work in the field of special education, made a comment that connected to Missy’s experience. Grace noted how many teacher candidates did not learn to read through phonology and morphology instruction as children, so it can be challenging for them to teach to a student who requires specialized intervention. She wished that candidates could attend “a whole semester on the brain and reading research” before graduating and leave their undergraduate training “with a certificate in a structured reading program such as Orton-Gillingham or Wilson.”

Ability and Capacity to Teach Students With Dyslexia

Study participants cited examples of reflecting on their journey with dyslexia. Specifically, some discussed how they share their experiences with dyslexia, indicating that they tell their students how reading was challenging for them and what may continue to be a struggle for them. In one article from the reviewed literature (Burns, 2015), teachers refrained from keeping their dyslexia a secret and disclosed their own learning challenges to their students as a way to motivate and empower them. Marie, one of the professor participants, discussed how “lived experiences” are a “wonderful way for teachers to connect with their students.” She explained how powerful it can be for a student to have a teacher who has lived through the same challenges to become a

successful reader. Several participants noted that disclosing their challenges can be comforting to children, while others choose not to discuss their dyslexia with students or parents. Whether or not they decide to share their profile, participants did discuss how their own passion for student success comes across to their students and students' parents. They pointed to strong advocacy at meetings as well as fostering trust in students. Participants felt trust was fostered through their knowledge about dyslexia and the brain and self-selected continued professional development in this area. They outlined how they encourage early identification of reading disabilities, preferring to intervene as soon as possible instead of waiting to see if students outgrow a reading problem. Those participants with specialized reading training felt that their training and experiences made them a good match for teaching students with dyslexia.

Eleven participants made reference to their journey and specifically noted how their unique situations as former struggling students blossoming into successful teachers may seem hard for others to fathom. One participant noted, "It was hard for my family to see how a child who hated school would ever want to become a teacher." A few noted that they were happy to share their stories for this study as they do not seem to have a voice in important decisions about programming regarding children with dyslexia.

As adults, participants noted that they continue to see markers of their dyslexic profile in their daily lives, including errors with spelling, challenges with working memory, and fatigue that accompanies longer reading tasks. Some noted how they seek support from their peers or their school administration. Disclosing to students is different from disclosing to peers or supervisors, and the reviewed literature noted how many teachers reported hesitation about disclosing their learning disabilities to educational

administration for fear of misunderstanding, while others described their disclosure as akin to “coming out” as a gay person (Valle, Solis, Volipitta, & Connor, 2004).

Participants noted shame as a real factor in disclosure and two discussed how dyslexia may be attributed to low intelligence by misinformed peers. As such, only five participants noted seeking support from peers. This support may include asking a peer to review reports or documents of errors or setting up a forum to share electronic lessons and materials to help save time. The higher education experts encouraged disclosure to peers, citing that it is beneficial for those without challenges to hear first-person stories of overcoming challenges, but study participant Betty warned that is difficult to become vulnerable again. A handful of teachers noted seeking support from administrators. They felt that disclosing would allow supervisors to place them on duties that best fit their profile, such as avoiding a volunteer committee that required a lot of reading and writing.

Whether or not they chose to tell students or staff about their challenges, participants felt they should be viewed as ideal teachers for their students. “Maybe when dyslexia is a more common word that is not loaded with misinformation, more of us will tell our stories,” reflected Julia. “Not everyone with dyslexia is a famous movie star or scientist, and some of us have worked very hard to become good teachers.”

Teacher Reflection

The words of the study participants demonstrated their capacity for reflection and consideration of their life journeys. Boud and Walker (1991) identified three stages within the reflection-on-experience phase of learning: returning to experience, attending to feelings, and re-evaluating experiences. Of the 20 study participants, all cited examples of returning to an event or events. Likewise, all participants cited examples of attending

to their feelings associated with one or more specific experiences, which is the second stage in the reflection-on-experience process, according to Boud and Walker (1990, 1991, 1993). Several participants, such as Betty, attended to feelings that brought tears to her eyes as she described her experiences with dyslexia and anxiety and recounted how she applied to 25 colleges. The final stage of the reflection-on-experience phase in the Boud and Walker (1990, 1991, 1993) model is the re-evaluation of an experience through these four aspects: association, or relating new information to that which is already known; integration, or seeking relationships between new and old information; validation, or determining the authenticity for the learner of the ideas and feelings which have results; and finally, appropriation, or making knowledge one's own, "a part of one's normal ways of operating" (Boud, 1994, p. 4). The words of all study participants reflected one or more of these four aspects. Twenty-five-year-old Christina reflected on her journey to becoming a teacher of students with learning challenges and how it was a good fit for her. "I understand how it feels to be misunderstood and to fake that I was reading chapter books. I want students to trust that I know their learning style and how to best work with them to reach their goals." She continued, "...kids want to do well and it takes a lot for them to trust adults, especially students who have struggled for way too long." She reflected, "I was lucky that I never experienced [the struggles that] many of my students have experienced, but I know what it is like to not to read well and nobody likes that feeling." Laura, an elementary special education professional who teaches in a substantially separate program, related how she reacted when her daughter was diagnosed with dyslexia in first grade. She reflected on past and future, and her response

demonstrated all four aspects of Boud and Walker's model: association, integration, validation, and, finally, appropriation:

When my own child was diagnosed with dyslexia and anxiety too, it all came full circle. So many emotions and thoughts were swirling around. I was relieved that we had diagnosed her early and had resources to help her. But of course, my head was swimming with all the thoughts of the struggles ahead for her. I just wanted the path to be easier for her. But then I thought, "I just want her to be *her*."

Laura's reflections demonstrated how she had come to terms with the possible struggles her daughter may face, yet Laura did not want her daughter to be defined by dyslexia; she wanted her daughter to be her true self.

The researcher was humbled by the participants' willingness and capacity to reflect on their oftentimes challenging paths through school and to adulthood and a career in teaching. She was reminded of the power of reflection and how one's ability to reflect on and re-evaluate experiences can catapult change. In the case of the teachers in this study, reflection can help them to continue to refine their practices while considering their role in effecting change for others in the future.

Chapter VI

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to draw conclusions based on the analysis of this study and to present corresponding recommendations that inform the field with respect to best practices. The chapter, and the study, closes with the researcher's re-examination of assumptions presented in Chapter I as well as a reflection on the research experience.

The words of the study participants, the literature, and the experiences of the researcher shaped the previous analysis. The researcher noted that opportunity to attend well-designed programming for learners with dyslexia varies from district to district and access to such programming is often dependent on privilege. Teacher knowledge and educational placement leverage strong outcomes for those with dyslexia. Lack of access to appropriate teaching affects learners emotionally, often for their lifetime. Thankfully, good teaching combined with resilience helps many to go to successful careers. The researcher analyzed the notion of dyslexia as a gift with special talents of tenacity and perseverance. She outlined the reflections of teachers in her practice as they considered this debate. She considered this tenacity when analyzing the paths to teaching undertaken by study participants and member check participants while weighing their reflections on self-reported skill sets that make them ideal candidates to teach children with dyslexia.

Finally, the researcher considered in what ways the capacity for reflection—and opportunities to reflect—can be catalysts for change.

The researcher crafted this analysis with the goal of drawing the conclusions and offering the recommendations that follow.

Conclusions

Teachers in the study described both negative and positive learning experiences as children with dyslexia. Negative experiences often stemmed from teachers' lack of information, or misinformation, which resulted in misidentification, inappropriate placements, delayed identification, or less-than-ideal teaching strategies. Positive experiences were noted with informed and knowledgeable teachers who used research-based strategies and supported students emotionally. These experiences were reflected in participants' stories and later in their recommendations. Several teachers advised those involved in higher education and teacher training to "actually use the D word" and to teach facts about dyslexia. Others also made reference to genetic predisposition and the importance of learning how students are hard-wired with dyslexia from birth. Participant Samantha noted, "Dyslexia does not result from not being read to. It is a real learning profile that should be understood by all teachers." Those who prepare teachers were further advised to convey that not all people with dyslexia are the same; they present on a spectrum of severity, experience varying strengths and weaknesses, and respond differently to interventions. Several participants recommended that professors engage teacher candidates in dyslexia simulations. "You can only learn so much from a textbook. I think future teachers should observe a student with dyslexia over a semester and keep a

journal of his or her progress over time,” noted Megan. “Future teachers should talk to kids with this profile too. What is their day really like? We can learn a lot as teachers when we hear students’ own words.”

The researcher contends that professors and student teaching supervisors need to teach the science of reading and warns against confusing their personal teaching philosophies with what current brain research reveals. As study participant Erica noted, “My graduate degree entailed two reading courses; one of them focused on children’s literature and the other focused on building reading comprehension and writing skills.” She added, “There was no instruction in phonology and very little in phonics. I don’t think my professors understood the instructional value of phoneme-grapheme mapping, and thus didn’t teach about it.” Hannah voiced, “It was hard to come out of my teacher training program unprepared to help struggling readers. Looking at pictures and making predictions does not make one a reader. I felt helpless. And a little ripped off that I learned only ineffective teaching strategies.” Several were chagrined that they felt they needed more training after completing their graduate work. Samantha concurred:

After I finished my degree, I still had to spend thousands of dollars for PD [professional development] to feel comfortable with helping my weaker readers. My school had no money to send me, but I felt I had to do it for my students. Thankfully, it has helped us all tremendously. I just wish it weren’t a special thing. Why isn’t the science of reading commonplace in teacher education?

Participants endorsed support groups and study groups for teacher candidates with dyslexia, citing issues with record keeping and paperwork as a source of stress and burnout. Study participant Lauren suggested, “I think that colleges of ed should directly teach new teachers how to manage all of the expectations. Teachers need systems and maybe someone to check in with to alleviate anxiety and frustrations.” Special education

teachers balance daily schedules, assessment timelines, IEPs, progress monitoring data, behavior plans, and school-to-home communications on top of creating daily lesson plans and related teaching materials. “I think that is why so many teachers leave the special education field. I found it overwhelming and that is why I only teach part-time now,” noted Amanda. Others favored a support group for discussing other daily challenges such as proofreading or dealing with word retrieval difficulties. One challenge to this ideal is disclosure. Betty asserted, “I have never discussed my dyslexia with my colleagues. I probably should, but there was so much shame in my childhood. I just can’t bear to have other teachers think I am weak in the area of reading and spelling—when I am a teacher of reading and spelling.” Supporting teachers and encouraging them to disclose their dyslexia where appropriate will further the field.

The researcher draws four conclusions: (1) Teacher training about the dyslexic profile will be a critical component of training for all teachers; (2) All reading teachers must learn scientifically-based phonetic reading approaches and access to such training must be improved; (3) Candidates and teachers with dyslexia have particular skill and empathy for working with students with dyslexia and should be supported; and (4) Teachers with dyslexia should have opportunities to share their voices in educational decision making.

Recommendations

Based on the above conclusions, the researcher makes the following recommendations for the field:

Recommendation 1: Dyslexia training

Since dyslexia is the most common type of learning disability and can affect students academically and emotionally, it is vital that both teacher candidates and in-service teachers in all disciplines learn to identify its characteristics and implications. Participants' words from the research sources suggested that all teacher candidates, not just teachers specializing in special education, need preservice coursework regarding dyslexia. This would take the form of lectures in a developmental reading course or similar. Such coursework would include the definition of dyslexia and myths that surround it, symptoms of dyslexia across grades, the spectrum of severity that dyslexia encompasses, information about the strengths and weaknesses of the profile, current legislation, and knowledge of how to screen for dyslexia. Preservice training should include real-life opportunities to talk to a panel of persons with dyslexia, observe or interview a student with dyslexia, read a day-in-the-life story about a student with reading challenges, or hear from a parent of a student with dyslexia or from an adult with dyslexia. The words of participants, the input from the dyslexia experts, the research in the field of dyslexia, and the experiences of this researcher all point to the need for classroom teachers, reading specialists, and special educators to become knowledgeable about the phenomenon of dyslexia. The researcher concludes that this type of information is vital for student success. In addition to the information presented for teacher candidates as outlined above, instruction for in-service teachers should include how to speak to families about dyslexia; classroom placements and accommodations; teaching organizational skills, coping skills, and stress management; and resources for families to access such as audio books or summer camps.

Recommendation 2: Specialized reading training for reading teachers

Participants' stories and reflections indicated that preservice training in a specialized, structured, and systematic code-based reading intervention is paramount to student success. The researcher contends that such training should include specific coursework that addresses:

- foundational concepts about oral and written language learning;
- administration and interpretation of reading assessment instruments;
- aligning student data with scientifically based instruction;
- scope and sequence of skills from phonemes to morphemes; and
- systematic and multisensory delivery.

The researcher further contends that the teaching field can no longer deny the power of multisensory structured literacy approaches and it should not be left to chance that candidates will learn this type of teaching on the job. Higher education programs should adjust their coursework to reflect the brain science that will benefit all learners, not just those with dyslexia, and should require training not only for those seeking licensure in special education but for all teachers of literacy and reading. Multisensory structured language teaching is distinctive as instructional principles guide how critical elements are taught. This type of instruction is systematic and cumulative. Systematic means that the organization of material follows the logical order of the language. The sequence must begin with the simplest and most basic concepts and elements and progress methodically to more difficult concepts and elements. Cumulative means each step must be based on concepts previously learned. Multisensory structured literacy instruction requires the deliberate teaching of all concepts with continuous student-

teacher interaction. It cannot be assumed that students will naturally deduce these concepts on their own. Finally, this type of teaching is diagnostic and prescriptive. The teacher must be adept at individualizing instruction that meets a student's needs. The instruction is based on careful and continuous assessment, both informally, as in observations or checklists, and formally, as in scores from standardized measures. The content presented must be mastered to the degree of automaticity. Automaticity is critical to freeing all the student's attention and cognitive resources for comprehension and expression.

The International Dyslexia Association (IDA, 2018) developed and adopted standards for “1) content knowledge necessary to teach reading and writing to students with dyslexia or related disorders who are at risk for reading difficulty; 2) practices of effective instruction; and 3) ethical conduct expected of professional educators and clinicians” (p. 2). The researcher concurs that these standards must guide the teaching of reading. This type of teaching is direct and explicit, teaches from parts to whole, and uses all modalities to ensure success. While the “brand name” is less important, features should include well-designed teaching modules, a sufficient practicum component, skills in designing and delivering lessons, and knowledge of assessment. Modules should include: knowledge of the reading brain and how scientifically based instruction can rewire brain activity; the role of structured, multisensory teaching as part of a language arts curriculum; knowledge of different types of text; phonology and phonemic awareness; phonics and spelling generalizations; syllabication; morphology and etymology; skill in developing vocabulary and comprehension, and finally, writing—from handwriting to essay development.

Recommendation 3: Provide supports for candidates and teachers with dyslexia

The researcher asserts that colleges of education provide venues for candidates who struggle to come together to provide support and strategies to one another. This can be provided as an auxiliary to a special education methods course or an offshoot from a study group. While colleges and university excel at providing accommodations to complete coursework and assignments, they often do not provide direct support in job skills that special education teachers will need to be successful in their future placements. The researcher recommends that such instruction and support be provided during the course and not in the support center, particularly since research shows that not all students who qualify take advantage of support services (Glazzard & Dale, 2013; O'Shea & Meyer, 2016).

Within teacher preparation programs, the researcher recommends that higher education faculty provide opportunities for deep reflection in teacher candidates. All candidates will benefit from considering their assumptions and their life journeys toward teaching. The researcher further challenges school leaders to likewise find opportunities for teachers and teacher teams to reflect on their philosophies, their growth and learning, and the ways in which they support those who learn differently. Deep and impactful results may spring from time provided to reflect alone and with others.

Finally, participants noted that the voices of those with dyslexia should be used to shape local, state, and federal policy decisions around dyslexia. Several commented that adults with dyslexia can serve on educational boards and act as teacher mentors for those with dyslexia or those who work with students with dyslexia. "We have experience and wisdom," noted Samantha.

Recommendation 4: Teachers with dyslexia should have opportunities to share their voices

Teachers with dyslexia are a unique source of knowledge about dyslexia. The researcher contends that those involved in research, curriculum developers, school boards, and the like should seek their input. The voices of teachers with dyslexia should inform policy decisions, program development, and instructional materials. They should be sought to share their stories on panel discussions and in presentations for parents, community groups, and college students. Groups such as the IDA and its state branches should form speakers' bureaus to facilitate this type of sharing. The researcher realized throughout the study that while she may have years of knowledge and experience in working with students with dyslexia, she does not have insider knowledge as she is not a person with dyslexia. As such, when she presented at an adult literacy conference in 2018, she offered a presentation about dyslexia, but she co-presented with an adult with dyslexia. The evaluations revealed that attendees found the co-presenter's story to be compelling, propelling them to investigate more how they could specifically help those with dyslexia in their adult basic education courses.

Final Summary

The researcher completed an 18-month qualitative research study that involved exploring with teachers with dyslexia their reflections and lived experiences. The goals were to discover:

1. What did teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher?

2. In what ways did teachers' own experiences as learners and teachers with dyslexia influence the ways that they currently practice?
3. In what ways did teachers with dyslexia perceive their learning disability affected their ability and capacity to teach students with dyslexia?

The researcher hoped that a better understanding of the perceptions of a sample of teachers with dyslexia would provide insight into best practices for supporting and teaching young people with dyslexia.

Through interviews with 20 teachers, member check interviews, and discussions with three higher education professionals who specialize in reading disabilities, the researcher saw several themes emerge from the data. These themes included the complexity of dyslexia and that it is not a one-size-fits-all profile. This pointed to the need for more teacher knowledge around dyslexia and how to teach reading using systematic and structured methodologies. Participants cited their unique abilities to empathize with and understand the needs of students with dyslexia. Participants noted that dyslexia continues across the lifespan and they continue to use strategies to compensate for weaknesses associated with it.

The researcher noted that opportunity to attend well-designed programming for learners with dyslexia varies and access is often dependent on privilege. As teacher knowledge and educational placement leverage strong outcomes for those with dyslexia, it will be important for information about dyslexia to be disseminated and carefully implemented. This is a matter of social justice for all students, no matter where they attend school. This type of implementation will require systemic changes at the college, state, and district level. It will be vital to include the voices of those with dyslexia as the

education field refines its assumptions, policies, and procedures regarding educating and supporting those with dyslexia.

Contributions to Literature

This section serves to define this study's place within the existing literature. Data from this study affirmed some of the literature reviewed in Chapter II. Specifically, it spoke to the challenges that students with dyslexia face. Data from participants affirmed the 2011 study by Washburn, Joshi, and Binks-Cantrell about teacher misinformation and how myths about dyslexia can be damaging. Participants' early experiences pointed to the need for teacher training about the dyslexic profile and how to remediate the weaknesses associated with it. According to Shaywitz (2005) at the Yale Center for Dyslexia and Creativity, students without a clear diagnosis of dyslexia may be deemed lazy or unmotivated, or they may be diagnosed as having an emotional disability due to behaviors associated with frustration tolerance around academic tasks. Data from study participants corroborated this notion that dyslexia may mask itself as another condition and it takes skilled practitioners to identify it.

The study participants' assertion that teachers of students with dyslexia should have training in scientifically based reading intervention aligns with the 2018 edition of Knowledge and Practice Standards for Teachers of Reading put forth by the IDA. The researcher's work centered on teachers in Massachusetts, a state which at the start of the study had yet to establish any specific laws regarding screening for dyslexia in public schools. Yet in October 2018, Massachusetts did adopt legislation (ch. 272, sec. 57A) "to issue guidelines to assist districts in developing screening procedures or protocols for

students that demonstrate one or more potential indicators of a neurological learning disability including, but not limited to, dyslexia.” This hopeful change fueled the researcher as she viewed the study topic to be timely and relevant.

It was important to understand the narratives of the study subjects as the public, schools, and educators acquire a more accurate understanding of dyslexia as well as its cognitive, affective, academic, and social ramifications. As states continue to develop and pass legislation, awareness and teacher training around dyslexia will become critical. The researcher affirms this study represented a relevant and timely topic for inquiry and that this study informs those who seek to understand more about the lived experiences of those with dyslexia who have gone on to become teachers of students with dyslexia. These lived experiences have led to recommendations that inform the education field regarding best practice for those with dyslexia.

Recommendations for Future Research

The researcher recommends that additional studies be conducted to enhance understanding of how the experiences of teachers with dyslexia can lead to stronger outcomes for future students and teachers with dyslexia. For this purpose, the following should be considered:

Conduct a similar study of the learning and growth of the same teachers with dyslexia at a later period in time. One consideration would be to revisit the study participants after the state dyslexia law has been in practice for at least 5 years. The current research study captured the perspectives of teachers with dyslexia during a particular period in time that is poised for change with respect to knowledge about

dyslexia. A study that follows these teachers longitudinally to examine in what ways their practice and the practice of those in their schools may change over time would complement the current study.

As dyslexia laws vary from state to state, another consideration would be to consider a similarly designed study in a state other than Massachusetts. It may be valuable to examine teaching practices in a state that has had a dyslexia law in place for the longest period of time.

Finally, an exploration about how thought leaders (school superintendents, legislators, governors) with dyslexia reflect on their experiences in their educational decision making would shed light on the insights of those with dyslexia who are not teachers but whose decisions impact teachers and students.

Reflection

The researcher is grateful to have engaged in this study and is thankful to those who generously participated. Study participants shared private feelings and experiences that were often shameful or hurtful. It is because of their generosity and selflessness that the researcher had data to study. Study participants indicated that they shared information willingly in the hope that it would make the path for future students and teachers easier. It is hoped that this study will make a small contribution toward that wish. In closing, the researcher reexamined assumptions from Chapter I, and confirms her original assertion that dyslexia is not a condition to be cured, but rather a learning profile that has a unique set of strengths and weaknesses. She further confirms her assertion that those who work

with students with dyslexia can benefit from more information about best practices.

Finally, she confirms this assertion from Morgan and Burn (2000):

Dyslexic adults can bring special skills to the teaching profession; as a result of frustration experienced in their own education, they may have developed both an awareness and a sensitivity to the needs of children who have difficulty developing basic literacy skills. (p. 772)

The researcher is hopeful that the words, findings, analysis, and conclusions from this study can begin a conversation about the future for all who work with students with dyslexia, those who prepare teachers who have dyslexia, and those teachers who live with dyslexia. With brain science making its way into classroom practice, the researcher anticipates that experiences of future children with dyslexia will be more positive and productive and that dyslexia will become a more commonplace word in teaching vernacular.

As she is not a person with the dyslexia, the researcher worried that she would not adequately reflect or interpret the words and experiences of study participants. She is hopeful that the participants are satisfied. Additionally, she is hopeful they feel their participation was worth the effort and will lead to positive changes for future students' experiences as persons with dyslexia.

REFERENCES

- Academy of Orton-Gillingham Practitioners and Educators (AOGPE). (2017). *What is the Orton-Gillingham approach?* Retrieved from <https://www.ortonacademy.org/resources/what-is-the-orton-gillingham-approach/>
- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Boud, D. (1994). Conceptualising learning from experience: Development a model for facilitation. 35th Proceedings of the 35th Adult Education Research Conference, 20-22. Retrieved from www.education.uts.edu.au/ostaff/staff/publications/db_13_aerc94.pdf
- Boud, D., Cohen, R., & Walker, D. (Eds.). (1993). *Using experience for learning*. Buckingham, UK: Society for Research into Higher Education and Open University Press.
- Boud, D., Keogh, R., & Walker, D. (1985). Promoting reflection in learning: a model. In D. Boud, R. Keogh, & D. Walker (Eds.), *Reflection: Turning experience into learning* (pp. 18-40). New York, NY: Nichols.
- Boud, D., & Walker, D. (1990). Making the most of experience. *Studies in Continuing Education*, 12(2), 61-80.
- Boud, D., & Walker, D. (1991). *Experience and learning: Reflection at work*. Geelong, Australia: Deakin University Press.
- Boud, D., & Walker, D. (1993). Barriers to reflection-on-experience. In D. Boud, R. Cohen, & D. Walker (Eds.), *Using experience for learning* (pp. 73-86). Buckingham, UK and Bristol, PA: Society for Research into Higher Education and Open University Press.
- Brinkmann, S., & Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing* (3rd ed.). Thousand Oaks, CA: Sage.
- Brookfield, S. (1987). *Developing critical thinkers: Challenging adults to explore alternative ways of thinking and acting*. San Francisco, CA: Jossey-Bass.
- Brookfield, S. D. (1993). How the visceral experience of learning reframes teaching. In D. Boud, R. Cohen, & D. Walker (Eds.), *Using experience for learning* (pp. 73-86). Buckingham, UK & Bristol, PA: Society for Research in Higher Education and Open University Press.
- Brunswick, N. (Ed.). (2012). *Supporting dyslexic adults in higher education and the workplace*. London, UK: Wiley-Blackwell.

- Burns, E. (2015). *Tertiary teachers with dyslexia as narrators of their professional life and identity*. Dissertation, University of Jyväskylä.
- Burns, E., & Bell, S. (2011). Narrative construction of professional teacher identity of teachers with dyslexia. *Teaching and Teacher Education*, 27, e952-e960.
- Catts, H., Kamhi, A., & Adlof, S. (2012). Defining and classifying reading disabilities. In A. Kamhi & H. Catts (Eds.), *Language and reading disabilities* (3rd ed.) (pp. 45-76). Boston, MA: Allyn & Bacon.
- Center for Applied Special Technology (CAST). (2018). Universal Design for Learning Guidelines. Retrieved from <http://www.cast.org/our-work/about-udl.html>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Decoding dyslexia Massachusetts. (2017). Retrieved from <http://www.decodingdyslexiama.org/>
- Dewey, J. (1938). *Experience and education*. New York, NY: Collier.
- Dickman, G. E. (2008). How do I thank a word that has changed my life? *Perspectives on Language and Literacy*, 34(1), 5.
- Duquette, C. (2000). Examining autobiographical influences on student teachers with disabilities. *Teachers and Teaching: Theory and Practice*, 6(2), 215-228.
- Dyslexia Training Institute. (2015). For those with dyslexia, whole language is a coping mechanism, not a strategy. Retrieved from <http://www.dyslexiatraininginstitute.org/blog/dyslexia-whole-language-coping-mechanism-strategy/>
- Fenwick, T. (2000). Expanding conceptions of experiential learning: A review of the five contemporary perspectives on cognition. *Adult Education Quarterly*, 50(4), 243-272.
- Ferri, B. A., Keefe, C. H., & Gregg, N. (2001, January/February). Teachers with learning disabilities: A view from both sides of the desk. *Journal of Learning Disabilities*, 34(1). ProQuest.
- Fitchburg State University. (2017). *Special education curriculum guide: Teacher of students with moderate disabilities, PreK-8*. Retrieved from https://catalog.fitchburgstate.edu/preview_program.php?catoid=32&poid=7513&returnto=2064
- Gibson, S. & Kendall L. (2010). Stories from school: Dyslexia and learners' voices on factors impacting on achievement. *Support for Learning*, 25(4), 187-193.

- Glazzard, J., & Dale, K. (2013), Trainee teachers with dyslexia: Personal narratives of resilience. *Journal of Research in Special Educational Needs*, 13, 26-37.
doi:10.1111/j.1471-3802.2012.01254
- Griffiths, S. (2012). Being dyslexic doesn't make me less of a teacher: School placement experiences of student teachers with dyslexia: strengths, challenges and a model for support. *Journal of Research in Special Educational Needs*, 12(2), 54-65.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). London, UK: Sage.
- Henry, M. K., & Brinkley, S. G. (1999). *Dyslexia: Samuel T. Orton and his legacy*. Baltimore, MD: International Dyslexia Association.
- International Dyslexia Association (IDA). (2002). *Definition of dyslexia*. Adopted by the IDA Board of Directors, November 12, 2002. Retrieved from <https://dyslexiaida.org/definition-of-dyslexia/>
- International Dyslexia Association (IDA). (2013). *The dyslexia-stress-anxiety connection: Implications for academic performance and social interactions*. Baltimore, MD: Author.
- International Dyslexia Association (IDA). (2017). *Dyslexia basics*. Baltimore, MD: Author.
- International Dyslexia Association (IDA). (2018). *Knowledge and practice standards for teachers of reading* (2nd ed.). Baltimore, MD: Author.
- Jarvis, P., Holford, J., & Griffin, C. (1988). *The theory and practice of learning*. London, UK: Kogan Page.
- Kain, D. (2004). Owning significance: The critical incident technique in research. In K. deMarrais & S. D. Lapan (Eds.), *Foundations for research: Methods of inquiry in education and the social sciences* (pp. 69-85). Mahwah, NJ: Lawrence Erlbaum.
- Kendall, L. (2008). The conduct of qualitative interview: Research questions, methodological issues, and researching online. In J. Coiro, M. Knobel, C. Lankshear & D. Leu (Eds.), *Handbook of research on new literacies* (pp. 133-149). New York, NY: Lawrence Erlbaum.
- Lawrence, D. (2009). *Understanding dyslexia*. Maidenhead, UK: Open University Press.

- Liberman, I. Y., & Liberman, A. M. (1990). Whole language vs. code emphasis: Underlying assumptions and their implications for reading instruction. *Annals of Dyslexia*, 40, 51-76.
- Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *Naturalistic Evaluation*, 30, 73-84.
- Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2003). A definition of dyslexia. *Annals of Dyslexia*, 53, 1-14.
- Massachusetts Department of Elementary and Secondary Education. (2001). *IEP process guide*. Retrieved from <http://www.doe.mass.edu/sped/iep/proguide.pdf>
- Massachusetts Department of Elementary and Secondary Education. (2017). Licensure summary and regulatory changes. Retrieved from <http://www.doe.mass.edu/licensure/summary-regulatory-changes.html>
- McCann, D. (2016). Dyslexia awareness: History of dyslexia. Retrieved from <http://www.dyslexia-aware.com/dawn/history-of-dyslexia>
- McGrady, H., Lerner, J., & Boscardin, M. (2001). The educational lives of students with learning disabilities. In P. Rodis, A. Garrod, & M. Boscardin (Eds.), *Learning disabilities and life stories* (pp. 177-193). Boston, MA: Allyn and Bacon.
- McGuinniss, D. (1997). *Why our children can't read and what we can do about it: A scientific revolution in reading*. New York, NY: The Free Press.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass/Wiley.
- Miller, N (2000). Learning from experience in adult education. In A. Wilson & E. Hayes (Eds.), *Handbook of adult and continuing education* (pp. 71-86). San Francisco, CA: Jossey-Bass.
- Moats, L. (2008). Demystifying the “D” word: Why and how the term dyslexia should be used. *Perspectives on Language and Literacy: A Quarterly Publication of the International Dyslexia Association*, 34(1), 7-8.
- Moats, L. (2009). Still wanted: Teachers with knowledge of language. *Journal of Learning Disabilities*, 42(5), 387-391.

- Moats, L. (2016, January). Allegiance to the facts: A better approach for dyslexic students. *IDA Examiner*. Retrieved from <https://dyslexiaida.org/allegiance-to-the-facts-best-approach-for-students-with-dyslexia/>
- Morgan, E., & Burn, E. (2000). Three perspectives on supporting a dyslexic trainee teacher. *Innovations in Education and Training International*, 37(2), 172-177.
- National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Report of the subgroups. Retrieved from <https://www.nichd.nih.gov/publications/pubs/nrp/Documents/report.pdf>
- O'Shea, A., & Meyer, R. A. (2016, Spring). Qualitative investigation of the motivation of college students with nonvisible disabilities to utilize disability services. *Journal of Postsecondary Education and Disability*, 29(1), 5-23.
- Pelkey, L. (2001). In the LD bubble. In P. Rodis, A. Garrod, & M. Boscardin (Eds.), *Learning disabilities and life stories* (pp. 17-28). Boston, MA: Allyn and Bacon.
- Pinnell, G. S., & Fountas, I. (2010). Research base for guided reading as an instructional approach. Retrieved April 10, 2018 from http://emea.scholastic.com/sites/default/files/GR_Research_Paper_2010_3.pdf
- Pollak, D. (2005). *Dyslexia, the self, and higher education: Learning life histories of students identified as dyslexic*. London, UK: Threntham Books.
- Reiff, H., Gerber, P. R., & Ginsberg, R. (1996, November-December). What successful adults with learning disabilities can tell us about teaching children. *Exceptional Children*, 29, 10-16.
- Riddell, S., & Weedon, E. (2014). Disabled students in higher education: Discourses of disability and the negotiation of identity. *International Journal of Educational Research*, 63, 38-46.
- Riddick, B. (2003). Experiences of teachers and trainee teachers who are dyslexic. *International Journal of Inclusive Education*, 7(4), 389-402.
- Robson, C. (2011). *Real world research* (3rd ed.). West Sussex, UK: Wiley.
- Schwerdt, G., West, M. R., & Winters, M. A. (2017). The effects of test-based retention on student outcomes over time: Regression discontinuity evidence from Florida. *Journal of Public Economics*, 152, 154-169.
- Shaywitz, S. E. (2005). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level*. New York, NY: Vintage.

- Shaywitz, S. E., Morris, R., & Shaywitz, B. A. (2008). The education of dyslexic children from childhood to young adulthood. *Annual Review of Psychology*, 59(1), 451-475.
- Stake, R. E. (2010). *Qualitative research: Studying how things work*. New York, NY: The Guilford Press.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 22, 360-407.
- Torgesen, J. K. (1998, Spring/Summer). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator*, 22(1), 32-39.
- Torgesen, J. K. (2006). A scientific success story: Specific reading disabilities, or developmental dyslexia. Keynote address, Florida Council for Exceptional Children, Panama City, October.
- U.S. Department of Education. (2017). Building the legacy: IDEA 2004. Retrieved from <http://idea.ed.gov/explore/view/p/,root,statute,I,B,612,a,5,.html>
- Valle, J. W., Solis, S., Volipitta, D., & Connor, D. J. (2004). The disability closet: Teachers with learning disabilities evaluate the risks and benefits of coming out. *Equity and Excellence in Education*, 37(1), 4-17.
- Washburn, E., Joshi, R. M., & Binks-Cantrell, E. (2011). Teacher knowledge of basic language concepts and dyslexia. *Dyslexia (Chichester, England)*, 17, 165-183. 10.1002/dys.426
- Wilson, A., & Hayes, E. (Eds.). (2000). *Handbook of adult and continuing education*. San Francisco, CA: Jossey-Bass.
- Woodhouse, C. (2012). Reflective practice and identity construction: The particularities of the experiences of teachers specialising in dyslexia. *Reflective Practice*, 13(6), 747-760.
- Youman, M., & Mather, N. (2018, Spring). Dyslexia laws in the USA: A 2018 update. *Perspectives on Language and Literacy*.

Appendix A

Interview Questions for Individual Teacher Interviews

Research Questions	Interview Questions
<p>What do teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, and their journey to becoming a teacher?</p> <p>In what ways do teachers' own experiences as learners and teachers with dyslexia influence the ways that they currently practice?</p> <p>In what ways do teachers with dyslexia perceive their learning disability affects their ability and capacity to teach students with dyslexia?</p>	<p>Think back to a moment in time (before, during, or after college) when something occurred and you said to yourself or realized, "This is what I want to do—I want to be a teacher of students who learn differently." Describe when and where it happened, who was involved (titles only) and why it was critical in your embarking on this profession.</p> <p>Describe the special education setting where you teach now (inclusion, learning center, specialized school, etc.).</p> <p>Describe your specific teaching practices in your work with your special education students. In what ways do you feel that your life experiences and learning experiences have affected your instructional decisions?</p> <p>Now let's look back in time. Tell me what you remember about entering special education as a student—how old you were when you began, the subjects for which you received assistance, and the setting where your intervention occurred.</p> <p>Think back to a moment in time when you were in school—elementary, middle school, or high school—when something occurred (maybe positive—maybe not)—a moment when you said to yourself something like "Aha, now I get it. Now I better understand my dyslexia." Describe when and where it happened and who was involved (no names), and why it was critical in your understanding.</p> <p>Think back to a moment in time when you were in school—elementary, middle school, or high school—when something occurred and you realized a teacher really didn't understand your learning style, a moment when you said to yourself something like, "Wow, he/she really doesn't get me." Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p>

	<p>Think back to a moment in time when you were in school—elementary, middle school, or high school—when something occurred and you realized a teacher really did understand your learning style, a moment when you said to yourself something like, “Wow, he/she really gets me, or he/she really has empathy.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p> <p>Think back to a moment in time in your teaching career—when something occurred (maybe positive—maybe not)—a moment when you said to yourself something like “Aha, now I get it. Now I better understand how to teach students who learn differently.” Describe when and where it happened and who was involved (no names), and why it was critical in your understanding.</p> <p>Think back to a moment in time in your teaching career—when something occurred and you realized teaching struggling learners was challenging, “Wow, I don’t know if I am cut out for this work.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p> <p>In what ways do you think the ways in which you teach today are influenced by your own experiences?</p> <p>Is there anything else that you wish new special education teachers knew about the experiences of being a person with dyslexia?</p> <p>What would you share with professors in higher education teacher preparation programs who work with future teachers of students with dyslexia about the experiences of being a person with dyslexia?</p>
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Appendix B

Interview Questions for Member Checks

Research Questions	Interview Questions
<p>What do teachers with dyslexia say they learned from their experiences in and out of the classroom setting with respect to self-concept, resilience, or their journey to becoming a teacher?</p> <p>In what ways do teachers' own experiences as learners and teachers with dyslexia influence the ways that they currently practice?</p> <p>In what ways do teachers with dyslexia perceive their learning disability affects their ability and capacity to teach students with dyslexia?</p>	<p>Describe the special education setting where you work with learners with dyslexia (inclusion classroom, learning center, specialized school, etc.).</p> <p>Think back to a moment in time (before, during, or after college) when something occurred and you said to yourself or realized, "This is what I want to do—I want to be a teacher of students who learn differently." Describe when and where it happened, who was involved (titles only) and why it was critical in your embarking on this profession.</p> <p>Describe your specific teaching practices in your work with your special education students. In what ways do you feel that your life experiences have affected your instructional decisions?</p> <p>Here are five themes/reflections that surfaced from my individual interviews with 20 teachers with</p> <ul style="list-style-type: none"> • Dyslexia is complex and not one-size-fits-all. • Teachers of students with dyslexia must be knowledgeable and well trained. • Teachers with dyslexia may have empathy and understanding for the dyslexic profile. • Dyslexia continues across the lifespan and teachers may make their own accommodations in the workplace. • Teachers must implement scientifically-based interventions and teacher training colleges must teach them. <p>In what ways do the experiences of these teachers line up with your experiences?</p> <p>Is there anything else that you wish new special education teachers knew about the experiences of being a person with dyslexia?</p>

Appendix C

Interview Questions for Dyslexia Experts

Describe your specific teaching practices in your work with your special education teacher candidates.

In what ways might teacher candidates who identify as having dyslexia have special skills for working with students like themselves?

What are the reading methodologies that you feel are the most effective for teaching students with dyslexia? Why do you feel this way?

What are the classroom accommodations (in relation to reading development) that you feel are the most effective for teaching students with dyslexia? Why do you feel this way?

Here are five themes/reflections that surfaced from my individual interviews with 20 teachers with dyslexia:

- Dyslexia is complex and not one-size-fits-all.
- Teachers of students with dyslexia must be knowledgeable and well trained.
- Teachers with dyslexia may have empathy and understanding for the dyslexic profile.
- Dyslexia continues across the lifespan and teachers may make their own accommodations in the workplace.
- Teachers must implement scientifically based interventions and teacher training colleges must teach them.

In what ways do the experiences of these teachers line up with what you have seen in your teacher trainees?

In what ways do you specifically support teacher candidates who identify as having dyslexia?

Appendix D

Demographic Questions for Interview/Member Check Candidates

Pre-Interview Telephone Questionnaire for Potential Interview Candidates
Are you a current public school special education teacher in Massachusetts? yes/no
Do you identify as a person with dyslexia/language-based learning disability? yes/no
Do you work with students with reading disabilities/dyslexia? yes/no
I identify as: male/female (for diversity purposes only)
How long have you been teaching full-time? (0-2 years, 3-5 years, 6-10 years, 11-15 years, 15+ years)
Describe the geography of your current school location. (urban, suburban, rural)
What percentage of your school is comprised of Title 1 students? (0-10%, 11-30%, >30%)
What type of special education setting do you work in? (inclusion classroom, pull-out learning center/skills center, substantially separate classroom)
Are you willing to confidentially discuss your experiences as a person with dyslexia/language-based learning disability? yes/no
Did you receive special education services on an IEP during your K-12 schooling? yes/no
At what age did that begin?
What type of special education setting did you receive special education services when you were a student in K-12? (inclusion, pull-out learning center/skills center, substantially separate classroom)
What is the best telephone number to reach you?

Appendix E

Informed Consent—Individual Teacher Interviews

Teachers College, Columbia University
525 West 120th Street
New York NY 10027
212 678 3000

INFORMED CONSENT

Protocol Title: Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts.

Principal Investigator: Lisa M. Brooks, Adult Education Guided Intensive Study (AEGIS) Program – within the Adult Learning and Leadership Department, Teachers College.

INTRODUCTION

You are being invited to participate in a research study titled “Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts.” You qualify to take part in this research study because you are a Massachusetts public school special education teacher who works with students with dyslexia (or specific learning disability in reading) who also self-identifies as a person with dyslexia. Approximately 20 teachers will participate in this study and it will take approximately 60 to 75 minutes of your time.

WHY IS THIS STUDY BEING DONE?

The researcher will explore the perceptions of 20 adults with dyslexia—who also are Massachusetts teachers of K-12 students with dyslexia—to discover in what ways their own life and learning experiences in special education settings may have impacted the ways that they currently practice in public schools. The insights from these unique teachers may lead to researcher recommendations that may benefit (1) new teachers/teacher candidates with dyslexia, (2) all teachers who work with students with learning dyslexia, and (3) higher education faculty who prepare teachers who work in the field of reading and learning disabilities.

WHAT WILL I BE ASKED TO DO IF I AGREE TO TAKE PART IN THIS STUDY?

If you decide to participate, you will be asked to answer orally-presented questions in a 1:1 confidential interview of approximately 60 to 75 minutes. The interview will be audio recorded and the information will be transcribed for later analysis by the researcher. You will be given a pseudonym or false name in order to keep your identity confidential. You will be asked to review the transcript of your interview for accuracy and/or clarification.

WHAT POSSIBLE RISKS OR DISCOMFORTS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

This is a minimal-risk study, which means the harms or discomforts that you may experience are not greater than you would ordinarily encounter in daily life. The principal investigator is taking precautions to keep your information confidential and to prevent anyone from discovering or guessing your identity. Examples are using a pseudonym instead of your real name and keeping all information on a password-protected computer and locked in a file drawer.

WHAT POSSIBLE BENEFITS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

There is no direct benefit to you for participating in this study. Participation may benefit the field of education, specifically in gaining new insights into best practices for students with dyslexia and the teachers who work with them.

WILL I BE PAID FOR BEING IN THIS STUDY?

You will not be paid to participate. There are no costs to you for taking part in this study.

WHEN IS THE STUDY OVER? CAN I LEAVE THE STUDY BEFORE IT ENDS?

The study interviews will take place in summer and fall 2018. The researcher will complete all interviews and follow-up phone calls by November 30, 2018. After you agree to participate, you may decide to withdraw at any time.

PROTECTION OF YOUR CONFIDENTIALITY

The study data will be stored on a password protected encrypted laptop in possession of the examiner. A backup of this data will be maintained in a locked storage box until the termination of the project. Research regulations require that research data be kept for at least three years. For quality assurance, the study team, the study sponsor (grant agency), and/or members of the Teachers College Institutional Review Board (IRB) may review the data collected from you as part of this study. Otherwise, all information obtained from your participation in this study will be held strictly confidential and will be disclosed only with your permission or as required by U.S. or State law.

HOW WILL THE RESULTS BE USED?

This study is being conducted as part of a requirement for the researcher's Doctor of Education degree. The results of this study may be published in journals and/or presented at academic conferences. Your name or any identifying information about you will not be published.

CONSENT FOR AUDIO AND OR VIDEO RECORDING

Audio recording is part of this research study. You can choose whether to give permission to be recorded. If you decide that you don't wish to be recorded, you will not be able to participate in this research study.

_____ I give my consent to be recorded

Signature

_____ I **do not** consent to be recorded

Signature

WHO MAY VIEW MY PARTICIPATION IN THIS STUDY

___ I consent to allow written or audio recorded materials viewed at an educational setting or at a conference outside of Teachers College.

Signature

___ I **do not** consent to allow written or audio recorded materials viewed outside of Teachers College Columbia University.

Signature

WHO CAN ANSWER MY QUESTIONS ABOUT THIS STUDY?

If you have any questions about taking part in this research study, you should contact Lisa Brooks (lmb2259@tc.columbia.edu). If you have questions or concerns about your rights as a research subject, you should contact the Institutional Review Board (IRB) (the human research ethics committee) at 212-678-4105 or email IRB@tc.edu. Or you can write to the IRB at Teachers College, Columbia University, 525 W. 120th Street, New York, NY 10027. The IRB is the committee that oversees human research protection for Teachers College, Columbia University.

PARTICIPANT'S RIGHTS

- I have read and discussed the informed consent with the researcher. I have had ample opportunity to ask questions about the purposes, procedures, risks and benefits regarding this research study.
- I understand that my participation is voluntary. I may refuse to participate or withdraw participation at any time without penalty to future employment.
- The researcher may withdraw me from the research at his or her professional discretion.
- If, during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to continue my participation, the investigator will provide this information to me.
- Any information derived from the research study that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- I understand my data will not be used in further research studies.
- I should receive a copy of the Informed Consent document.

My signature means that I agree to participate in this study

Print name: _____ **Date:** _____

Signature: _____

Appendix F

Informed Consent—Member Checks

Teachers College, Columbia University
525 West 120th Street
New York NY 10027
212 678 3000

INFORMED CONSENT

Protocol Title: Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts

Principal Investigator: Lisa M. Brooks, Adult Education Guided Intensive Study (AEGIS) Program – within the Adult Learning and Leadership Department, Teachers College.

INTRODUCTION

You are being invited to participate in a research study titled “Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts.” You qualify to take part in this research study because you are a Massachusetts public school special education teacher who works with students with dyslexia (or specific learning disability in reading) who also self-identifies as a person with dyslexia. Four teachers will participate in this aspect of the study and it will take approximately 45 to 60 minutes of your time.

WHY IS THIS STUDY BEING DONE?

The researcher will explore the perceptions of 4 adults with dyslexia—who also are Massachusetts teachers of K-12 students with dyslexia—to discover in what ways their own life experiences and learning experiences in special education settings may have impacted the ways that they currently practice in public schools. The insights from these unique teachers may lead to researcher recommendations that may benefit (1) new teachers/teacher candidates with dyslexia, (2) all teachers who work with students with learning dyslexia, and (3) higher education faculty who prepare teachers who work in the field of reading and learning disabilities.

WHAT WILL I BE ASKED TO DO IF I AGREE TO TAKE PART IN THIS STUDY?

If you decide to participate, you will be asked to participate in a 1:1 confidential telephone interview that will explore data collected from previously conducted teacher interviews. You will be asked to inform this data with your own reflections. You will be given a pseudonym or false name in order to keep your identity confidential. You will be asked to review the answers you provide for accuracy and/or clarification.

WHAT POSSIBLE RISKS OR DISCOMFORTS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

This is a minimal-risk study, which means the harms or discomforts that you may experience are not greater than you would ordinarily encounter in daily life. The principal investigator is taking precautions to keep your information confidential and to prevent anyone from discovering or guessing your identity. Examples are using a pseudonym instead of your real name and keeping all information on a password-protected computer and locked in a file drawer.

WHAT POSSIBLE BENEFITS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

There is no direct benefit to you for participating in this study. Participation may benefit the field of education, specifically in gaining new insights into best practices for students with dyslexia and the teacher who work with them.

WILL I BE PAID FOR BEING IN THIS STUDY?

You will not be paid to participate. There are no costs to you for taking part in this study.

WHEN IS THE STUDY OVER? CAN I LEAVE THE STUDY BEFORE IT ENDS?

The study interviews will take place in summer and fall of 2018. The researcher will complete all interviews and follow-up phone calls by November 30, 2018. After you agree to participate, you may decide to withdraw at any time.

PROTECTION OF YOUR CONFIDENTIALITY

The study data will be stored on a password protected encrypted laptop in possession of the examiner. A backup of this data will be maintained in a locked storage box until the termination of the project. Research regulations require that research data be kept for at least three years. For quality assurance, the study team, the study sponsor (grant agency), and/or members of the Teachers College Institutional Review Board (IRB) may review the data collected from you as part of this study. Otherwise, all information obtained from your participation in this study will be held strictly confidential and will be disclosed only with your permission or as required by U.S. or State law.

HOW WILL THE RESULTS BE USED?

This study is being conducted as part of a requirement for the researcher's Doctor of Education degree. The results of this study may be published in journals and/or presented at academic conferences. Your name or any identifying information about you will not be published.

CONSENT FOR AUDIO AND OR VIDEO RECORDING

Audio recording is part of this research study. You can choose whether to give permission to be recorded. If you decide that you don't wish to be recorded, you will not be able to participate in this research study.

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Signature

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Signature

WHO MAY VIEW MY PARTICIPATION IN THIS STUDY

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PARTICIPANT'S RIGHTS

- I have read and discussed the informed consent with the researcher. I have had ample opportunity to ask questions about the purposes, procedures, risks and benefits regarding this research study.
- I understand that my participation is voluntary. I may refuse to participate or withdraw participation at any time without penalty to future employment.
- The researcher may withdraw me from the research at his or her professional discretion.
- If, during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to continue my participation, the investigator will provide this information to me.
- Any information derived from the research study that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- I understand that my data will not be used in further research studies.
- I should receive a copy of the Informed Consent document.

My signature means that I agree to participate in this study

Print name: _____ **Date:** _____

Signature: _____

Appendix G

Informed Consent—Dyslexia Experts

Teachers College, Columbia University
525 West 120th Street
New York NY 10027
212 678 3000

INFORMED CONSENT

Protocol Title: Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts

Principal Investigator: Lisa M. Brooks, Adult Education Guided Intensive Study (AEGIS) Program – within the Adult Learning and Leadership Department, Teachers College.

INTRODUCTION

You are being invited to participate in a research study titled “Learning from Experience: The Practice of Teachers with Dyslexia Working with Special Education Students in Massachusetts.” You qualify to take part in this research study because you are a higher education professional who works in the field of teacher preparation for students with learning disabilities and dyslexia. Approximately 20 teachers will participate in this study as well as three dyslexia experts. Participation as a dyslexia expert will take approximately one hour of your time.

WHY IS THIS STUDY BEING DONE?

The researcher will explore the perceptions of 20 adults with dyslexia—who also are Massachusetts teachers of K-12 students with dyslexia—to discover in what ways their own experiences in special education settings as students may have impacted the ways that they currently practice in public schools. The insights from these unique teachers may lead to researcher recommendations that may benefit (1) new teachers/teacher candidates with dyslexia, (2) all teachers who work with students with learning dyslexia, and (3) higher education faculty who prepare teachers who work in the field of reading and learning disabilities. Your participation as an expert in the field of dyslexia and learning disabilities will serve to enhance or expand the data gleaned from the teacher participants.

WHAT WILL I BE ASKED TO DO IF I AGREE TO TAKE PART IN THIS STUDY?

If you decide to participate, you will be asked to answer orally-presented questions in a 1:1 confidential telephone interview or face-to-face interview of approximately 60 minutes. Your interview will be audio recorded and the information will be transcribed for later analysis by the researcher. You will be given a pseudonym or false name in order to keep your identity confidential if you desire. You will be asked to review the transcript of your interview for accuracy and/or clarification.

WHAT POSSIBLE RISKS OR DISCOMFORTS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

This is a minimal risk study, which means the harms or discomforts that you may experience are not greater than you would ordinarily encounter in daily life. The principal investigator is taking precautions to keep your information confidential and to prevent anyone from discovering or guessing your identity if you so desire. Examples are using a pseudonym instead of your real name and keeping all information on a password-protected computer and locked in a file drawer.

WHAT POSSIBLE BENEFITS CAN I EXPECT FROM TAKING PART IN THIS STUDY?

There is no direct benefit to you for participating in this study. Participation may benefit the field of education, specifically in gaining new insights into best practices for students with dyslexia.

WILL I BE PAID FOR BEING IN THIS STUDY?

You will not be paid to participate. There are no costs to you for taking part in this study.

WHEN IS THE STUDY OVER? CAN I LEAVE THE STUDY BEFORE IT ENDS?

The interviews with higher education faculty will take place in fall 2018. The researcher will complete all interviews and follow-up phone calls by November 30, 2018. After you agree to participate, you may decide to withdraw at any time.

PROTECTION OF YOUR CONFIDENTIALITY

The study data will be stored on a password protected encrypted laptop in possession of the examiner. A backup of this data will be maintained in a locked storage box until the termination of the project. Research regulations require that research data be kept for at least three years. For quality assurance, the study team, the study sponsor (grant agency), and/or members of the Teachers College Institutional Review Board (IRB) may review the data collected from you as part of this study. Otherwise, all information obtained from your participation in this study will be held strictly confidential and will be disclosed only with your permission or as required by U.S. or State law.

HOW WILL THE RESULTS BE USED?

This study is being conducted as part of a requirement for the researcher's Doctor of Education degree. The results of this study may be published in journals and/or presented at academic conferences. Your name or any identifying information about you will not be published.

CONSENT FOR AUDIO AND OR VIDEO RECORDING

Audio recording is part of this research study. You can choose whether to give permission to be recorded. If you decide that you don't wish to be recorded, you will not be able to participate in this research study.

_____ I give my consent to be recorded

Signature

_____ I **do not** consent to be recorded

Signature

WHO MAY VIEW MY PARTICIPATION IN THIS STUDY

___ I **do** consent to allow written materials (confidential quotations from interview) to be viewed at an educational setting or at a conference outside of Teachers College, Columbia University.

Signature

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Signature

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PARTICIPANT'S RIGHTS

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- I understand that my participation is voluntary. I may refuse to participate or withdraw participation at any time without penalty to future employment.
- The researcher may withdraw me from the research at his or her professional discretion.
- If, during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to continue my participation, the investigator will provide this information to me.
- Any information derived from the research study that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- I understand that my data will not be used in further research studies.
- I should receive a copy of the Informed Consent document.

My signature means that I agree to participate in this study

Print name: _____ **Date:** _____

Signature: _____

Appendix H

Final Coding Table for Member Check Participants

Code Indicator(s)	Code	Fred	Deanna	Francesca	Bridget
School Experiences (SE)					
Poor reader	SE1PR	x	x	x	x
Poor speller	SE2PS		x		
Inattentive, hyper	SE5IH				
In remedial class	SE6RC	x			x
Felt stupid, embarrassed	SE7FS	x		x	
Wanted more for self	SE8WM	x			
Frustrated	SE9F				
Wrong crowd, angry, behaviors	SE10WC				
Teased, ostracized	SE11TO	x			
Low self-esteem	SE12SE				
Separate room	SE13SR	x			
Faked reading	SE14FR	x			
Traumatic experience	SE17TE		x		
Grit, self-determination	SE18SD	x		x	x
Complexity (health, poverty, ELL, family)	SE19CX		x		
Teacher who “got” me (TP)					
Caring	TP1C	x		x	x
Supportive	TP2S		x	x	
Fostered strengths	TP3FS				
Specialized teaching	TP4ST		x		
Coping strategies	TP5CS			x	x
Strategies that worked for me (TS)					
Accommodations	TS1AA			x	x
Exemptions	TS2E				x
Hands-on learning	TS3HO			x	
Systematic teaching	TS4ST		x		
Small group instruction	TS5SG	x	x		
Curriculum expectations/high	TS6HS			x	x

Journey to becoming a teacher (JT)

Always wanted to be a teacher	JT1AT				
Planned to be something else, then became a teacher	JT2SO	x			
Real-life internship/practicum was a good match for learning style	JT3ST				
Took longer than peers to graduate college	JT4LG	x		x	
Took teacher exam more than once	JT5TE			x	
Continue to use self-taught strategies	JT6SS	x		x	x
Peer support group	JT7SG				
Seek administrative support	JT8AS				x
Inspired to become a teacher	JT9BT		x		

What I do as a teacher (CT)

Hold high expectations	CT1HE			x	x
No excuses	CT2NE				
Celebrate student strengths	CT3CS			x	x
Debunk myths about dyslexia	CT4DM			x	x
Share own experiences	CT5SE				
Ensure peer group, appropriate placement	CT6PG				
Systematic teaching	CT7ST	x	x	x	x
Hands on learning	CT8HO				
Multisensory teaching	CT9MT	x	x		x
Specialized phonics, spelling, comp program	CT10SR	x	x		x
Appropriate accommodations	CT11AA			x	x
Small group teaching	CT12SG	x	x	x	x
Encourage students	CT13ES	x	x	x	x

Capacity to teach (SS)

Have empathy	SS1HE	x	x	x	x
Understand profile	SS2UP	x	x	x	x
Encourage early identification	SS3EI				x
Protect self-esteem	SS4SE	x		x	x
Hold high expectations	SS5HX				
Know own limitations	SS6KL		x	x	
Reflective teacher	SS7RT			x	
Continued professional development	SS8CPD	x		x	x
Know current laws	SS9KL	x			
Know about brain	SS10KB	x		x	
Specialized reading training	SS11SR	x			x
Dyslexia training	SS12DT			x	
Foster trust in students	SS13FT				
Foster trust in parents	SS13FTP				
Good match for me	SS14GM	x			x

Appendix I

Final Coding Table for Dyslexia Experts

Code Indicator(s)	Code	Grace	Henry	Marie
My own teaching (TS)				
Appropriate accommodations	TS1AA	x	x	x
Relevant topics	TS2RV	x	x	x
Hands-on learning, modeling	TS3HO	x	x	x
Systematic teaching	TS4ST	x		x
Small group instruction, discussions	TS5SG	x	x	x
Regular curriculum expectations/high standards	TS6HS	x	x	x
Alternate forms of assessment	TS7AT		x	
Practicum experience, student teaching	TS8PE	x		x
Program Fit	TS9PF	x	x	
Available to students	TS10AS	x	x	x
Reading Methodologies and Accommodations (RT)				
Ensure peer group, appropriate placement	RT6PG	x	x	x
Systematic teaching	RT7ST	x		x
Hands-on learning	RT8HO	x	x	x
Multisensory teaching	RT9MT	x		x
Specialized phonics, spelling, comprehension	RT10SR	x	x	x
Appropriate accommodations, technology	RT11AA	x	x	x
Small group learning	RT12SG	x		x
Universal Design for Learning	RT14UD		x	
Strengths based teaching	RT15SB		x	
Candidates' capacity to teach (SS)				
Have empathy	SS1HE	x	x	
Understand profile	SS2UP	x	x	x
Protect self-esteem	SS4SE	x		x
Hold high expectations	SS5HX		x	x
Know own limitations	SS6KL	x		
Reflective teacher	SS7RT	x		x
Foster trust in students	SS13FT	x		x
Capable of doing work	SS15CT	x	x	x

Recommendations (R)

Increase teacher knowledge	R1TK	x	x	x
Specialized reading training	R3RT	x	x	x
More dyslexia training in undergraduate program	R4UG	x	x	x
Continued professional development in schools	R5PD		x	

Appendix J

Sample Interview Transcripts

Interview 5: “Christina” - age 25 – High School Teacher
 Received special education services in an inclusion setting as a student
 Now teaches in substantially separate classroom

LB: Let’s talk about deciding to become a teacher. When did that happen? Think back to a moment in time (before, during, or after college) when something occurred and you said to yourself or realized, “This is what I want to do – I want to be a teacher of students who learn differently.” Describe when and where it happened, who was involved (titles only) and why it was critical in your embarking on this profession.	
C: It’s funny. I thought I would be a scientist or engineer because science was my thing as a kid. That was my plan and then sometime in high school I thought about being a science teacher. So I was accepted to a teacher program at [private] college and I did my student teaching in science, grades 5-12. It was fun to design lessons for kids and I liked the hands-on activities I made. When I graduated, by happenstance there was an opening at [private school for students with language-based learning disabilities.] I loved working there with small classes of bright students with dyslexia. It was a great fit because of the combination of my own learning style and my teaching license. I learned so much there about learning disabilities and ADHD, emotional impacts, and the struggles that kids go through that precipitate their need to go to a special school. The teachers and administrators were amazing. While I was there I earned my masters in special education. After two years I transferred here [to public school] because the pay was higher. Now I teach more reading and language, but I also co-teach math and science so I am able to bring a lot of my multisensory activities into a lot of subjects. It is a good fit.	JT2SO
	TS3HO
	SS14GM
	SS2UP
	CT6PG CT9MT SS14GM
LB: Describe the special education setting where you teach now (inclusion, learning center, specialized school, etc.)	
C: This year I am teaching in a high school language-based learning center in my public school, working with freshmen. My students are basically in a self-contained program for most of the day and they go to art, lunch, gym, etc. with their non-disabled peers. In the program, we co-teach most subjects in a	CT6PG, CT12SG

<p>small setting and each student receives a 1-to-1 or 1-to-2 tutorial for reading and comprehension. I have seven students and two teaching assistants. This separate learning programs can be beneficial if students need that level of support. I think the program is life changing. My students see this as a safe space, something we try to foster. We all know that we have weakness but we have strengths too and everyone 'speaks the same language' if you know what I mean. The kids know that they need extra time and specialized technology and someone to read over their work for spelling errors. And they don't need to explain themselves all the time because everyone is in the same boat. They can still do the work, but it is presented in a small setting with more support.</p>	<p>CT10SR CT6PG</p> <p>SS13FT</p> <p>CT3CS</p> <p>CT11AA</p> <p>CT6PG</p> <p>CT12SG</p>
<p>LB: Can you describe your specific teaching practices in your work with your special education students? In what ways do you feel that your life experiences and learning experiences have affected your instructional decisions?</p>	
<p>C: I don't really get to decide too much of the curriculum as the students are following the regular freshman curriculum but I am able to decide the way that I teach and make accommodations as needed. We use [specialized multisensory reading program] for intervention, which I have a love-hate relationship with. It is very didactic, which is fine, but the mastery for each section is nuts. The students need to get perfect scores to move on to the next unit and they might get 100% one day, but 80% the next, so they get frustrated that they are not able to move on to a new concept. In any case, most of my students have memorized a significant number of words but are not able to read unfamiliar words. They have been able to get only so far, and now they need more tools. I give them phonetically-regular nonsense words to read, which of course they hate. But I am forever telling them that if they can read a made-up word, they can read any word. It was what my mom told my teachers when I was young. So, that is what we use in tutorials, as well as a scaffolded writing program. I supplement the reading and writing with a lot of hands-on activities that I learned when I worked at [a private school for students with language-based learning disabilities.] The students like the games as a way to practice the learning. They hate worksheets and writing. We use technology too, but I am a firm believer in writing by hand because it helps with memory better than typing. What was the second part?</p>	<p>CT1HS</p> <p>CT11AA CT10SR, C9MT</p> <p>CT10SR</p> <p>CT8HO</p> <p>SS2UP CT11AA</p>
<p>LB: In what ways do you feel your life experiences and learning experiences have affected your instructional</p>	

decisions?	
<p>C: I think my life experiences help me with understanding the students and why they can become easily frustrated and discouraged. I also understand how it feels to be misunderstood and to fake that I was reading chapter books. I want students to trust that I know their learning style and how to best work with them to reach their goals. I think kids want to do well and it takes a lot for them to trust adults, especially students who have struggled for way too long. I am a young teacher, only a few years older than my high school students, so I think I am in an even more unique situation. I am just like my students and I have lived their journey. My students mostly just see me as just their teacher who runs marathons and coaches soccer, but deep down I know they trust that I ‘know’ them. High school is hard enough but extra hard when reading and paying attention are not your strengths. We work on self-esteem and talking about what they do well. The good thing is these kids have one another to lean on; I don’t remember having that as much.</p> <p>LB: Now let’s look back in time. Tell me what you remember about entering special education as a student - how old you were when you began, the subjects for which you received assistance, and the setting where your intervention occurred.</p> <p>C: I was diagnosed as dyslexic in third grade even though I think my parents knew earlier. My dad is dyslexic and my parents are up on learning disabilities, so they were always in the school checking up on me and riding the school about testing me. Back then I think the school just wanted to let me be. I was pretty smart and I could understand, so I was a good faker and good memorizer. I don’t think the school realized I couldn’t read until they had me read nonsense words. My mom said I couldn’t read any word that I hadn’t previously memorized. So that limits you. I had a tutor, but my parents were still all over the school to make sure I was getting what I needed there too. I guess I am lucky that they were so involved. I started in special education in third grade and I was pulled out in a small group for reading and language arts – probably for a few years. I had small classes in middle school. In high school I had accommodations, but I wasn’t in special education. I had extra time though to do my work and tests and ACTs. And some audio books.</p> <p>LB: Think back to a moment in time when you were in school – elementary, middle school, or high school – when something occurred (maybe positive – maybe not) – a moment when you</p>	<p>SS2UP</p> <p>SS1HE SE14FR</p> <p>SS13FT</p> <p>SS1HE</p> <p>SS13FT SS2UP SS4SE, CT3CS CT6PG</p> <p>SE19CX</p> <p>SE14FR</p> <p>TS5SG</p> <p>TS1AA TS1AA</p>

<p>said to yourself something like “Aha, now I get it. Now I better understand my dyslexia.” Describe when and where it happened and who was involved (no names), and why it was critical in your understanding.</p> <p>C: I started to understand my dyslexia when I was in seventh grade and the load of work was heavy. I realized that I had to work harder than my friends, and thankfully, I was just as successful. I feel so fortunate that my school kept me in regular class with support and I could do all the projects and papers that everyone else had to do. It just took me longer and my English teacher was patient because I wrote a lot of drafts and revisions. She encouraged me to keep writing.</p> <p>LB: Think back to a moment in time when you were in school – elementary, middle school, or high school – when something occurred and you realized a teacher really didn’t understand your learning style, a moment when you said to yourself something like, “Wow, he/she really doesn’t get me.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p> <p>C: I don’t remember teachers not getting me, but I do remember one situation with a teacher. My third grade teacher didn’t want to test me [for dyslexia] because she thought I could read. When I was finally evaluated, I think she thought my diagnosis was made up. When I got something right, she would say, ‘See, you can read fine.’ Little did she know I was just guessing and relying on my wits.” She added, “And just because I was right some of the time didn’t mean I could really read.” It is interesting how far smart kids can get before a teacher realizes they are faking or memorizing, not really reading. My parents insisted on the testing and then I got extra help. I think my teacher was surprised that I qualified for help. It makes me very aware of students who have good work-arounds. They can get very far before one realizes they are just using the pictures and context to read.</p> <p>LB: Think back to a moment in time when you were in school – elementary, middle school, or high school – when something occurred and you realized a teacher really did understand your learning style, a moment when you said to yourself something like, “Wow, he/she really gets me, or he/she really has empathy.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p>	<p>SE18SD</p> <p>TS6HS</p> <p>TP2S</p> <p>TN1M</p> <p>TN1M</p> <p>TN1M</p> <p>SS2UP</p>
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<p>C: It was great that my parents were “in the know” so to speak. They had great tutors for me who made me feel good and gave me strategies. In school I liked the small group setting and working at my pace. I’m sure all my teachers were fine. I don’t remember anyone that I loved specifically, but they did help me. I had a good guidance counselor in high school who helped me with my study guides and getting extra time. She had a seminar about stress and that really helped. Always feeling not good enough is stressful and she helped me with mindfulness and journaling. We would write down things we were grateful for as a way to not over-focus on the negative.</p>	TS1AA
<p>LB: Think back to a moment in time in your teaching career – when something occurred (maybe positive – maybe not) – a moment when you said to yourself something like “Aha, now I get it. Now I better understand how to teach students who learn differently.” Describe when and where it happened and who was involved (no names), and why it was critical in your understanding.</p>	TP5CS
<p>C: Starting my career at [private school for students with language-based learning disabilities] really solidified my desire to work in this field. The students are smart and motivated and that keeps me going. At both of my schools I have really been able to see miraculous transformations in previously misunderstood students and that was so rewarding.</p>	
<p>LB: Think back to a moment in time in your teaching career—when something occurred and you realized teaching struggling learners was challenging, “Wow, I don’t know if I am cut out for this work.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p>	CT3CS CT4DM, SS2UP
<p>C: I have been very lucky that I have had wonderful colleagues in both of my schools. They have taught me so much. As I gain more skills, I realize that I am cut out for this work. I see myself in my students.</p>	
<p>LB: In what ways do you think the ways in which you teach today are influenced by your own experiences?</p>	
<p>C: I understand how it feels to be misunderstood and to fake that I was reading chapter books. I want students to trust that I know their learning style and how to best work with them to reach their goals. Kids want to do well and it takes a lot for</p>	SS14GM SS1HE, SS7RT

<p>them to trust adults, especially students who have struggled for way too long. I was lucky that I never experienced what [the struggles that] many of my students have experienced, but I know what it is like to not read well and nobody likes that feeling.</p> <p>LB: Was there ever a time you thought this work wasn't for you? Think back to a moment in time in your teaching career—when something occurred and you realized teaching struggling learners was challenging, “Wow, I don't know if I am cut out for this work.” Describe when and where it happened, who was involved (titles only), and why it was critical in your understanding.</p> <p>C: My career has been short – only three years. I don't think I ever wanted to quit, but at my public school, the paperwork, meetings, and consults can be tiring to keep up with ...but luckily my caseload is small. I have a lot more responsibility here [than my previous school] because I am the lead teacher and the parents can be litigious. So that can be stressful. It is all a lot of work, but I don't want to change careers.</p> <p>LB: In what other ways do you think the ways in which you teach today are influenced by your own experiences?</p> <p>C: I am a hands-on learner and most of my students are too. That makes us a good fit. If the students can touch it or experience it, they learn the concepts better. I tell my students they are smart and have unique learning profiles. I think they appreciate that. I had that from my own parents, so I share that with them [my students]. There is a lot about the uniqueness of the dyslexic learner and I make sure to share anything I see about that with my students. They need to understand their own strengths and weaknesses and learn to compensate instead of make excuses. I sometimes worry about my students being seen as ‘different,’ don't see my students be treating differently by their peers, but I can see how that may be a factor to consider. At our school we work hard on students being kind to all.</p> <p>LB: Is there anything else that you wish new special education teachers knew about the experiences of being a person with dyslexia?</p> <p>C: I just wish there was more knowledge and understanding. In the high school, it is rare that any teacher outside of my</p>	<p>SS1HE SS2UP</p> <p>SS13FT SS1HE</p> <p>SS6KL</p> <p>SS2UP SS14GM SS2UP</p> <p>SS2UP</p> <p>CT3CS, CT2NE</p> <p>SS4SE</p>
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<p>program even knows what dyslexia is. It is a complex learning style and way more than “seeing letters backwards.” I gave a brief faculty workshop at my school and that was eye-opening to see how little people knew before the session...even the special education teachers. I think many see dyslexia as a reading issue only and think that by high school they should be reading, so it isn’t an issue they need to know about. They don’t know that dyslexia is lifelong....and they seem unaware of the emotional and attentional issues that often go along with it.</p>	R1TK
<p>LB: What would you share with professors in higher education teacher preparation programs who work with future teachers of students with dyslexia about the experiences of being a person with dyslexia?</p>	R1TK R1TK
<p>C: I wish they taught about dyslexia across subjects. Many students with dyslexia excel in math and science, but it was never mentioned in my classes. Many classes talk about learning differences in elementary grades, but they rarely talk about them in regard to high school students. In high school things are so sophisticated...think of the executive functioning required to juggle six courses and different teachers’ expectations and learning requirements. It is a lot for any student but attention and learning disabilities make things so hard. And depression can creep in there too. I see many students become overwhelmed and we need to have the right emotional supports for them. I wish that professors would dedicate lectures to these areas. It will set future teachers up for success in the classroom.</p>	R1TK SS2UP
<p>LB: Thank you for sharing your insights.</p>	SS2UP
	SS2UP

Member Check Interview 3: “Deanna” - age 43 – Elementary School Teacher
 Received special education services in a substantially separate setting as a student
 And now teaches in the same

<p>LB: Describe the special education setting where you work with learners with dyslexia (inclusion classroom, learning center, specialized school, etc.)</p>	
<p>D: I work in an urban school district with elementary students in a separate learning center. I work with small</p>	TS5SG

<p>groups of kids in grades 1 to 3 who are out of the classroom the majority of the day. Most of them have learning disabilities. Some are English language learners with reading challenges as well, and some have behavioral challenges.</p> <p>LB Can you think back to a moment in time (before, during, or after college) when something occurred and you said to yourself or realized, “This is what I want to do—I want to be a teacher of students who learn differently.” Describe when and where it happened, who was involved (titles only) and why it was critical in your embarking on this profession.</p> <p>D: I had a wonderful fourth grade reading teacher who really supported me and made me feel good about my learning for the first time. I am not sure if she was a special education teacher, although she probably was. She taught me to sound out words and I worked with her one-to-one and sometimes with other kids. She always made us feel smart. So, I guess around that time I was inspired to become a teacher of some kind. There are low literacy levels in my family, so education was always in the forefront of my mind. I probably thought more seriously about it [becoming a teacher] in high school.</p> <p>LB: Describe your specific teaching practices in your work with your special education students. In what ways do you feel that your life experiences have affected your instructional decisions?</p> <p>D: I am trained in Orton-Gillingham and that is what I use to teach my young friends reading and spelling. My first grade groups are learning their short vowel sounds and digraphs [sh, ch, th] and my second and third graders are learning silent e and some of the vowel teams. I like teaching them [my students] in a systematic way. They are making nice progress. I like giving them a good foundation and knowledge about patterns. The regular reading program in [my district] gallops along at high speed. But everything I teach is systematic and practiced to mastery. We don’t do a drive-by when it comes to phonics skills. A lot of kids think that reading is guessing. I work hard to break that habit because it is harder to break as kids get older. With my fourth grade teacher, I learned [to read] in a systematic way and it worked for me. Later, when I became a teacher and read about Orton-Gillingham, I realized that it was similar to the way I learned. So I took the training even though my [current] school did not support it.</p>	<p>TP2S</p> <p>TS4ST TS4SG TP3FS SE19CX</p> <p>CT10SR</p> <p>CT12SG</p> <p>CT7ST CT10SR</p> <p>CT7ST</p> <p>TS4ST</p>
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<p>LB: Here are five themes/reflections that surfaced from my individual interviews with 20 teachers with dyslexia:</p> <ul style="list-style-type: none"> • Dyslexia is complex and not one-size-fits-all. • Many teachers of students with dyslexia are not knowledgeable about its symptoms or know how to identify it. • Teachers with dyslexia may have unique empathy and understanding for the dyslexic profile. • Dyslexia continues across the lifespan and teachers may need to make their own accommodations in the workplace. • Scientifically-based reading interventions are important for students with dyslexia. <p>In what ways do the experiences of these teachers line up with your experiences?</p> <p>D: All of this lines up with my experiences. I know that dyslexia can be mild or more serious. I fall somewhere in the middle. My early reading experiences were scary and sad, but thankfully things improved around the time I was 9. An added challenge in my situation was that my dad didn't read. I don't think I knew at the time that he never learned to read, but I am sure that it impacted me. I think he was afraid to come to school for meetings about me. So, my mom did everything and I know she was worried about me. So yes, generational dyslexia is complex. I am a strong proponent of dyslexia education and research-based reading programs. It is so shocking that even in our state where we have a lot of knowledge, both veteran and new teachers seem to know very little about dyslexia. And only a few teachers I know have any specialized training. That needs to change. I don't talk about my dyslexia with my fellow teachers or students. I don't think I want to talk about learning issues yet with kids who are so young. Maybe I am wrong about that. I just keep it light and say that we all work together and we get better with practice. They don't really know yet that they learn differently. At our school, we have so many kids with needs...most kids are in some type of intervention. So nobody feels bad about it. Teachers at my school know I am passionate about reading, but they don't really know why. I have worked hard, and I don't think anyone can tell I am dyslexic. Sure, I take a long time to read an article or a novel, but I do enjoy reading. These days so many people make</p>	<p>SS2UP SE17TE</p> <p>SE19CX</p> <p>SE19CX R1TK CT10SR R3RT</p> <p>R3RT</p> <p>CT13ES</p> <p>SS6KL</p>
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<p>errors in texts and emails, so I don't think I stand out and I don't worry about it.</p> <p>LB: And what about the empathy piece? Do you think that teachers with dyslexia have more ability to understand their students' profiles?</p> <p>D: Yes, certainly. They know how it feels to not know the secret sauce. Once you know it, you feel great, but it can be many years to get there. I don't think any teacher wants a student to feel that they are not smart, and dyslexic teachers in particular I would think want to really save kids from that feeling. I know how hard it is to learn to read and write, so I am particularly encouraging, positive, and direct in my teaching. I don't make assumption about what kids know. We start at the beginning and I think that makes them [students] feel safe in their learning. I encourage every effort. And some kids have a lot of baggage that they bring to school; so on some days, reading is the last thing on their mind. But I make a big deal out of every little time they try to sound out a word or trace a letter. It is a mindset.</p> <p>LB: Is there anything else that you wish new special education teachers knew about the experiences of being a person with dyslexia?</p> <p>D: I just feel that there are a lot of myths out there, so I wish that teachers would have opportunities to learn what dyslexia is and how to spot it. Kids will try everything to get out of reading when it is hard. But what kid doesn't want to read? There is a disconnect there. You can't say a kid is unmotivated. He has a difficulty, perhaps a disability. And that needs professional reading intervention.</p> <p>LB: Thank you for sharing your insights.</p>	<p>SS1HE</p> <p>CT13ES, CT7ST</p> <p>CT13ES SE19CX</p> <p>CT9MT, CT13ES</p> <p>R1TK</p> <p>R3RT</p>
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“Henry” – Associate Professor at Public University

<p>LB: Describe your specific teaching practices in your work with your special education teacher candidates.</p> <p>H: I teach undergrads and a few grad students in the moderate disabilities program. This semester my courses include Diversity and Disability, Behavior Management, Emotional Disorders, A collaboration/co-teaching course, and a seminar for those who are completing their student teaching. In other semesters I also teach</p>	
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<p>Strategies in Reading Instruction and sometimes I teach an assessment course. I like teaching on-campus courses because it allows me the best opportunities to monitor student engagement and progress. And it may be a more appropriate learning environment for those who need multi-modalities for learning. It allows for in-the-moment conversations and immediate feedback to questions...and of course hands-on classroom opportunities. I try to make all my content relevant and practical for them.</p>	CT8HO
<p>LB: In what ways might teacher candidates who identify as having dyslexia have special skills for working with students like themselves?</p>	
<p>H: I think these students have empathy as a particular skill or quality. I hope that students are willing to share their learning experiences in class. I don't like to put students on the spot, but I know that they will add richness to our conversations over the semester if they want to disclose [their learning profile]. Our class discussions about dyslexia are relevant. It was exciting to follow the Mass dyslexia bill as it made its way over two years. It made our class discussions even more real world. As we are preparing students to teach in public schools, they must be aware of legislation that will impact their teaching and their future students. I would think that these students would feel a particular urgency to have this legislation actually implemented in schools.</p>	SS1HE
	TS3RV R1TK
	R1TK
<p>LB: What are the reading methodologies that you feel are the most effective for teaching students with dyslexia? Why do you feel this way?</p>	
<p>H: I know all the current research is saying that structured literacy is what students need. And it is. I teach a structured reading strategies course. That is one piece. But I do want students to know how to support learners who read through context, for example. Most of my students go on to teach secondary students and they need to know that not all middle or high school students want to go back and learn the sounds. It is important for my students to know how to interpret reading errors on assessments, how to find appropriate texts for students to read, and how to support them in the general classroom curriculum.</p>	R3RT
	RITK
	R1TK R3RT
<p>Don't get me wrong. Students do need to know how to teach foundational reading skills. The amount of knowledge that students receive about dyslexia depends on the professor and the program. Not all students graduate equipped to work with children with dyslexia, even when they pass the [required state reading</p>	R4UG

<p>foundations exam.] We keep trying to refine our programs so that students feel ready to teach.</p> <p>LB: What are the classroom accommodations (in relation to reading development) that you feel are the most effective for teaching students with dyslexia? Why do you feel this way?</p> <p>H: In addition to teaching note-taking strategies and how to organize written assignments, teachers need to know how to use technology as a tool because not only do students need to know how to read and write, but they need to know how to remember information and organize it. I teach my [undergraduate and graduate] students about speech-to-text devices and audio books, when extended time is appropriate, alternate forms of assessment, and theory like strengths-based teaching. And I teach a lot about ensuring success for all students, not just those with learning disabilities. In terms of content, I like to teach my students about UDL [Universal Design for Learning] to ensure that they are meeting the needs of all learners –those who are advanced, those who have learning challenges, and those who might be learning English, for example. In the districts where my students do their student teaching, most students with LD are in the regular classroom setting for the majority of the day...it is an art for teachers to learn how to help everyone.</p> <p>LB: Here are five themes/reflections that surfaced from my individual interviews with 20 teachers with dyslexia:</p> <ul style="list-style-type: none"> • Dyslexia is complex and not one-size-fits-all. • Many teachers of students with dyslexia are not knowledgeable about its symptoms or know how to identify it. • Teachers with dyslexia may have unique empathy and understanding for the dyslexic profile. • Dyslexia continues across the lifespan and teachers may need to make their own accommodations in the workplace. • Scientifically-based reading interventions are important for students with dyslexia. <p>In what ways do the experiences of these teachers line up with what you have seen in your teacher trainees?</p> <p>H: ‘Complex.’ I like that word. Students with dyslexia can be complex and finding them can often be complex. Many times kids are yelling, ‘Look at me; I can’t read.’ But other times, we have to search them out because they may be masking their challenges with</p>	<p>RT11AA</p> <p>RT11AA</p> <p>RT15SB</p> <p>RT14UD</p> <p>RT14UD</p> <p>R1TK</p>
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<p>silence or poor behaviors. We have to stop looking for every other reason why a student may not be reading. Dyslexia is so common...why is a reading disability not the first instinct?</p>	R1TK
<p>Yes, I agree that all teachers need to know about dyslexia and those who teach reading need to teach in ways that reflect the science of the reading brain. And I feel strongly about students remaining in the mainstream with what I would call cutting edge teaching. Students need monitoring and adaptation of lessons. I see masterful teachers at work, so I know it can be done. You can walk in their classes and not know who has a disability because they have the ability to help all students shine. This is definitely an art that takes years to master. With the high turnover in special education, many never become top-notch. But most are solid. I think ongoing PD is key. I hope that districts continue to have funds for professional development. Teachers learn the basics in their prep programs and through student teaching, but their ongoing professional learning is what helps them tie it all together with experience.</p>	R1TK
<p>LB: In what ways do you specifically support teacher candidates who identify as having dyslexia?</p>	R5PD
<p>H: I see that more and more programs are offered in an online or hybrid format and I wonder if that is the best avenue for students and as I mentioned before, I think the traditional face-to-face class may be a more appropriate learning environment for those who need multi-modalities for learning. I have found that many of my students with dyslexia learn best from small group discussions and peer interactions and I design opportunities for those discussions. I have seen some students with weaker writing and study skills come out on top because they know how to network with others to get the work done. I recommend that they establish study groups and use a shared dropbox to upload class notes, comments, and study guides to share with peers.</p>	R5PD
<p>I also recommend that candidates use the course evaluation forms to make suggestions for course delivery. On evaluations, I think students should suggest other forms of assessment than tests or papers, and professors should be considering alternate ways for students to show their knowledge, such as portfolios.</p>	RT12SG
<p>I will make accommodations for anyone who asks, as long as the accommodation is reasonable. I can't have assignments submitted after the grades are due. But I tend to be lenient if a student needs extra time to read a lengthy assignment or asks for interim due dates to help him break down the assignment workload. And I make</p>	RT12SG
	TS5AT
	TS4AA

<p>slides available for download on the Moodle platform that I use. I post the handouts a day early in case students want to preview them before class. And of course, I encourage students to make use of the campus study center and tutoring if they need it. The staff at our center are very good. In my experience, the students who have disclosed their dyslexia to me are average to strong students and are definitely capable of the workload – both in the college classroom and their future classroom.</p> <p>LB: Thank you for your expertise and insights. I appreciate your time.</p>	<p>TS4AA</p> <p>SS14CT</p>
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